SDMS DocID 584907
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1.6

WESTON SOLUTIONS

# PROJECT NOTE

To: Jard Company Inc. Hazard Ranking System Project File

From: John Burton, Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team III (START)

Thru: Mr. John F. Kelly, Project Leader, START

Date: 2 October 2013

RE: Source, Surface Soil, and Sediment Sample Sample-Adjusted Contract Required Quantitation Limit Calculations and Form Is
Case 43395; SDG A4B16
TDD No. 13-09-0001; Task No. 0904-48; DC No. A-6870

## Introduction

The following Project Note describes the sample-adjusted Contract Required Quantitation Limit (CRQL) calculations for polychlorinated biphenyls (PCBs) analytical results of 18 surface soil samples collected from residential properties within the vicinity of the Jard Company Inc. property located in Bennington, Bennington County, Vermont. The samples were collected by Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team III (START) for the purpose of performing a Site Reassessment in support of a U.S. Environmental Protection Agency (EPA) Hazard Ranking System (HRS)/National Priorities List (NPL) Documentation Record. The analytical data were validated at a Tier II level according to Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses and the USEPA CLP National Functional Guidelines for Superfund Organic Methods.

Table 1 of this Project Note summarizes the validated analytical results for PCB analysis. Table 2 of this Project Note reports the sample-adjusted CRQL for each sample, which is either the CRQL or a raised value due to the dilution factor, percent solids, sample volume, and/or final volume. Tables 1 and 2 are included in *Attachment A* of this Project Note. The memorandum detailing the original validated results is included in *Attachment B* of this Project Note.

Copies of the pertinent Form I's have been included in *Attachment C* of this Project Note. CRQLs are listed in the *USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-media Multi-concentration, SOM01.1,* and the *Modifications Updating SOM01.1 to SOM01.2*, for PCBs, the pertinent portions of which are included in *Attachment D* of this Project Note.

**Sample-adjusted CRQL Determination for Soil/Source and Sediment Samples:**

The sample-adjusted CRQLs were calculated as follows: the PCB sample-adjusted CRQLs [in micrograms per kilogram (µg/Kg)] was calculated by multiplying the CRQL (in µg/Kg) for the substance by the method extraction weight [30 grams (g) nominally], dividing this result by the dry weight extracted (in g), and multiplying this result by the dilution factor. The dry weight extracted (in g) is calculated by multiplying the percent solids, expressed as a decimal, of the sample (100% - percent moisture) by the wet weight extracted (in g) of the sample. The percent moisture, wet weight extracted, and dilution factors are reported on the Form I for the sample.

$$\text{Sample-adjusted CRQL } (\mu g/Kg) = \frac{[CRQL \times 30g]}{[\%S \times W_W]} \times DF$$

CRQL = in µg/Kg
$W_W$ = wet weight extracted (g)
%S = Percent Solids (in decimal form)
DF = Dilution Factor

Attachment A

Tables

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

DATA SUMMARY TABLE 1
AROCLOR IN SOIL ANALYSIS
µg/Kg

| | | SAMPLE NUMBER | A4B81 | A4B82 | A4B83 | A4B84 | A4B85 | A4B86 | A4B87 |
|---|---|---|---|---|---|---|---|---|---|
| | | SAMPLE LOCATION | P005-SS-06 | P005-SS-06 | P011-SS-07 | P011-SS-04 | P005-SS-02 | P007-SS-01 | P010-SS-04 |
| | | STATION LOCATION | JCS-345 | JCS-347 | JCS-172 | JCS-164 | JCS-334 | JCS-270 | JCS-219 |
| | | LABORATORY NUMBER | E1904-03 | E1904-04 | E1904-05 | E1904-06 | E1904-07 | E1904-08 | E1904-09 |
| COMPOUND | MDL | CRQL | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1221 | 7.8 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1232 | 1.3 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1242 | 6.2 | 33 | 63 | 47 U | 43 U | 42 U | 60 | 44 U | 41 U |
| Aroclor-1248 | 2.7 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1254 | 3.2 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1260 | 3.2 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1262 | 14 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| Aroclor-1268 | 6.6 | 33 | 48 U | 47 U | 43 U | 42 U | 47 U | 44 U | 41 U |
| | | DILUTION FACTOR | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | DATE SAMPLED | 4/11/2013 | 4/11/2013 | 4/9/2013 | 4/9/2013 | 4/11/2013 | 4/10/2013 | 4/10/2013 |
| | | DATE EXTRACTED | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 |
| | | DATE ANALYZED | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| | | SAMPLE WEIGHT (GRAMS) | 30.09 | 30.07 | 30.06 | 30.04 | 30.05 | 30.07 | 30.03 |
| | | % SOLID | 69.1 | 70 0 | 76.9 | 79.5 | 69.9 | 74.1 | 81.3 |

NOTES: µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

DATA SUMMARY TABLE 1
AROCLOR IN SOIL ANALYSIS
µg/Kg

| | | SAMPLE NUMBER | A4B88 | A4B89 | A4B90 | A4B91 | A4B92 | A4B93 | A4B94 |
|---|---|---|---|---|---|---|---|---|---|
| | | SAMPLE LOCATION | P010-SS-03 | P010-SS-21 | P020-SS-04 | P020-SS-03 | P020-SS-07 | P020-SS-07 | P020-SS-08 |
| | | STATION LOCATION | JCS-217 | JCS-577 | JCS-456 | JCS-454 | JCS-464 | JCS-465 | JCS-466 |
| | | LABORATORY NUMBER | E1904-12 | E1904-13 | E1904-14 | E1904-15 | E1904-16 | E1904-17 | E1904-18 |
| COMPOUND | MDL | CRQL | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1221 | 7.8 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1232 | 1.3 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1242 | 6.2 | 33 | 39 J | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1248 | 2.7 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1254 | 3.2 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1260 | 3.2 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1262 | 14 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1268 | 6.6 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| | | DILUTION FACTOR | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | DATE SAMPLED | 4/10/2013 | 4/10/2013 | 4/15/2013 | 4/15/2013 | 4/15/2013 | 4/15/2013 | 4/12/2013 |
| | | DATE EXTRACTED | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 |
| | | DATE ANALYZED | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| | | SAMPLE WEIGHT (GRAMS) | 30.07 | 30.05 | 30.09 | 30.1 | 30.04 | 30.08 | 30.05 |
| | | % SOLID | 80.6 | 82 3 | 81.1 | 78.5 | 78.9 | 79.6 | 62.9 |

NOTES: µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH CONSULTING GROUP

DATA SUMMARY TABLE 1
AROCLOR IN SOIL ANALYSIS
µg/Kg

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SAMPLE NUMBER | A4B95 | A4B96 | A4B97 | A4B98 | | | |
| | | SAMPLE LOCATION | P020-SS-01 | P020-SS-10 | P020-SS-01 | P020-SS-09 | | | |
| | | STATION LOCATION | JCS-449 | JCS-473 | JCS-450 | JCS-471 | | | |
| | | LABORATORY NUMBER | E1904-19 | E1904-20 | E1904-21 | E1904-22 | | | |
| COMPOUND | MDL | CRQL | | | | | | | |
| | | | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1221 | 7.8 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1232 | 1.3 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1242 | 6.2 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1248 | 2.7 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1254 | 3.2 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1260 | 3.2 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1262 | 14 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1268 | 6.6 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| | | | | | | | | | |
| | | DILUTION FACTOR | 1 0 | 1 0 | 1.0 | 1.0 | | | |
| | | DATE SAMPLED | 4/12/2013 | 4/15/2013 | 4/12/2013 | 4/15/2013 | | | |
| | | DATE EXTRACTED | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | | | |
| | | DATE ANALYZED | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | | | |
| | | SAMPLE WEIGHT (GRAMS) | 30.01 | 30.1 | 30.05 | 30.07 | | | |
| | | % SOLID | 53.5 | 78 1 | 72.2 | 86.7 | | | |

**NOTES:** µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

DATA SUMMARY TABLE 2
SAMPLE ADJUSTED CRQL
µg/Kg

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SAMPLE NUMBER | A4B81 | A4B82 | A4B83 | A4B84 | A4B85 | A4B86 | A4B87 |
| | | SAMPLE LOCATION | P005-SS-06 | P005-SS-06 | P011-SS-07 | P011-SS-04 | P005-SS-02 | P007-SS-01 | P010-SS-04 |
| | | STATION LOCATION | JCS-345 | JCS-347 | JCS-172 | JCS-164 | JCS-334 | JCS-270 | JCS-219 |
| | | LABORATORY NUMBER | E1904-03 | E1904-04 | E1904-05 | E1904-06 | E1904-07 | E1904-08 | E1904-09 |
| COMPOUND | MDL | CRQL | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1221 | 7.8 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1232 | 1.3 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1242 | 6.2 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1248 | 2.7 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1254 | 3.2 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1260 | 3.2 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1262 | 14 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| Aroclor-1268 | 6.6 | 33 | 48 | 47 | 43 | 42 | 47 | 44 | 41 |
| | | DILUTION FACTOR | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | DATE SAMPLED | 4/11/2013 | 4/11/2013 | 4/9/2013 | 4/9/2013 | 4/11/2013 | 4/10/2013 | 4/10/2013 |
| | | DATE EXTRACTED | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 |
| | | DATE ANALYZED | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| | | SAMPLE WEIGHT (GRAMS) | 30.09 | 30.07 | 30.06 | 30.04 | 30.05 | 30.07 | 30.03 |
| | | % SOLID | 69.1 | 70.0 | 76.9 | 79.5 | 69.9 | 74.1 | 81.3 |

NOTES: µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
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U = Value is Non-Detected.
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J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

**SITE: JARD COMPANY INC**
**CASE: 43395 SDG: A4B16**
**LABORATORY: CHEMTECH CONSULTING GROUP**

**DATA SUMMARY TABLE 2**
**SAMPLE ADJUSTED CRQL**
**µg/Kg**

| | | SAMPLE NUMBER | A4B88 | A4B89 | A4B90 | A4B91 | A4B92 | A4B93 | A4B94 |
|---|---|---|---|---|---|---|---|---|---|
| | | SAMPLE LOCATION | P010-SS-03 | P010-SS-21 | P020-SS-04 | P020-SS-03 | P020-SS-07 | P020-SS-07 | P020-SS-08 |
| | | STATION LOCATION | JCS-217 | JCS-577 | JCS-456 | JCS-454 | JCS-464 | JCS-465 | JCS-466 |
| | | LABORATORY NUMBER | E1904-12 | E1904-13 | E1904-14 | E1904-15 | E1904-16 | E1904-17 | E1904-18 |
| COMPOUND | MDL | CRQL | | | | | | | |
| | | | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1221 | 7.8 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1232 | 1.3 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1242 | 6.2 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1248 | 2.7 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1254 | 3.2 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1260 | 3.2 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1262 | 14 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| Aroclor-1268 | 6.6 | 33 | 41 | 40 | 41 | 42 | 42 | 41 | 52 |
| | | | | | | | | | |
| | | DILUTION FACTOR | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1 0 | 1.0 |
| | | DATE SAMPLED | 4/10/2013 | 4/10/2013 | 4/15/2013 | 4/15/2013 | 4/15/2013 | 4/15/2013 | 4/12/2013 |
| | | DATE EXTRACTED | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 |
| | | DATE ANALYZED | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| | | SAMPLE WEIGHT (GRAMS) | 30 07 | 30.05 | 30.09 | 30.1 | 30.04 | 30.08 | 30.05 |
| | | % SOLID | 80.6 | 82.3 | 81.1 | 78 5 | 78.9 | 79.6 | 62.9 |

**NOTES:** µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
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* = Reported value is from diluted analysis.

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

DATA SUMMARY TABLE 2
SAMPLE ADJUSTED CRQL
µg/Kg

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | SAMPLE NUMBER | A4B95 | A4B96 | A4B97 | A4B98 | | | |
| | | SAMPLE LOCATION | P020-SS-01 | P020-SS-10 | P020-SS-01 | P020-SS-09 | | | |
| | | STATION LOCATION | JCS-449 | JCS-473 | JCS-450 | JCS-471 | | | |
| | | LABORATORY NUMBER | E1904-19 | E1904-20 | E1904-21 | E1904-22 | | | |
| COMPOUND | MDL | CRQL | | | | | | | |
| | | | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1221 | 7.8 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1232 | 1.3 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1242 | 6.2 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1248 | 2.7 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1254 | 3.2 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1260 | 3.2 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1262 | 14 | 33 | 62 | 42 | 46 | 38 | | | |
| Aroclor-1268 | 6.6 | 33 | 62 | 42 | 46 | 38 | | | |
| | | | | | | | | | |
| | | DILUTION FACTOR | 1.0 | 1.0 | 1.0 | 1.0 | | | |
| | | DATE SAMPLED | 4/12/2013 | 4/15/2013 | 4/12/2013 | 4/15/2013 | | | |
| | | DATE EXTRACTED | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | | | |
| | | DATE ANALYZED | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | | | |
| | | SAMPLE WEIGHT (GRAMS) | 30.01 | 30.1 | 30.05 | 30.07 | | | |
| | | % SOLID | 53.5 | 78.1 | 72.2 | 86.7 | | | |

**NOTES:** µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

Attachment B

Data Validation Memorandum
Case No. 43395; SDG No. A4B16

Weston Solutions, Inc.
East Division
3 Riverside Drive
Andover, Massachusetts 01810
978-552-2100 - Fax 978-658-0700

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
EPA CONTRACT EP-W-05-042

21 August 2013
20114-081-998-0850-49
DC No. A-6833

Ms. Martha Bosworth
U.S. EPA Region I - New England
Emergency Planning & Response Branch
5 Post Office Square, Suite 100
Mail Code OSRR07-2
Boston, Massachusetts 02109-3912

Subject: Case No. 43395; SDG No. A4B16
ChemTech Consulting Group (Chem)
Jard Company Inc
Bennington, Vermont
AROCLOR: 18/Soil/A4B81-A4B98
(Field Duplicates A4B88/A4B89)
6/Aqueous Equipment Blanks/A4B16, A4B54, *A4B12-A4B15*
*2/Soil PEs/A4B99, A4C00*
CERCLIS No. VTD048141741
TDD No. 12-10-0008, Task No. 0850-49

Dear Ms. Bosworth:

A Tier II validation was performed on the organic analytical data for 18 soil samples and six aqueous equipment (rinsate) blanks collected by WESTON START at the Jard Company Inc site in Bennington, Vermont, and for two PE samples obtained from EPA Region I. *Italicized sample ID numbers in the list above are associated with samples in this SDG, but reported in another SDG.* The samples were analyzed under CLP following SOW SOM01.2 as low/medium level for Aroclor compounds. The data were evaluated as Tier II level in accordance with the "Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses" dated December 1996, and the USEPA CLP National Functional Guidelines for Superfund Organic Methods, and were based on the following parameters:

| | | |
|---|---|---|
| | • | Overall Evaluation of Data and Potential Usability Issues. |
| * | • | Data Completeness. |
| * | • | Preservation and Technical Holding Times. |
| * | • | GC/MS and GC/ECD Instrument Performance Checks. |
| | • | IC and CC. |
| * | • | Blanks. |
| | • | Surrogate Compounds. |
| NA | • | IS. |
| * | • | MS/MSD. |
| * | • | Field Duplicates. |
| NA | • | Sensitivity Check (MDL Study or LFB). |


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| | | |
|---|---|---|
| * | • | PE Samples/Accuracy Check. |
| * | • | Target Compound Identification. |
| * | • | Sample Quantitation and Reported Quantitation Limits. |
| NA | • | TICs. |
| * | • | SVOC and PEST/PCB Cleanup. |
| * | • | System Performance. |
| NA | • | SEDD/ADR. |

* = No qualifications will be applied based on this parameter.

Table I summarizes overall evaluation of the data with reference to the DQO and potential usability issues. Qualified data are summarized in Data Summary Tables 1 and 2.

**Overall Evaluation of Data and Potential Usability Issues**

See Table I for overall evaluation of data and potential usability issues.

**Initial and Continuing Calibration**

Compounds that did not meet RSD criteria in the IC, %D criteria in the CC, and/or RRF criteria in the IC or CC are summarized in the following table:

**AROCLORS:**

| Compound | CV 4/24/13 |
|---|---|
| Aroclor-1016 (peak 1) | X (2) |
| **Samples Affected:** | A4B16, A4B54 |

Actions:
X = %RSD >20 or %D >15. Estimate (J) all positive results.
(1) = Criteria failed on Column No. 1.
(2) = Criteria failed on Column No. 2.

Sample results will be qualified as indicated above.



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## Surrogate Compounds

### AROCLORS:

Samples in which two or more Aroclor surrogate recoveries did not meet criteria are summarized in the following table:

| Sample No. | No. of Surrogates Out | Action Pos/ND |
|---|---|---|
| A4B91 | 1 | A/A |

Sample results will be qualified as indicated above.

## PE Samples/Accuracy Check

The criteria used by START for qualification of sample data based on the PE sample results are as follows:

| PE Score | Action | |
|---|---|---|
| | Non-Detects | Positive Results |
| In Window | Accept | Accept |
| Warning Low/High | Accept | Accept |
| Action Low | Reject (R) | Estimate (J) |
| Action High | Accept | Estimate (J) |
| TCL Misses | Reject (R) | Varies |
| TCL Contaminants | Accept | Varies |
| TIC Misses | Varies | Varies |
| TIC Contaminants | Varies | Varies |

All non-compliant PE scores were investigated by checking raw data, calculations, calibrations, possible matrix interferences, and blank contamination. Unless otherwise noted, all results reported by the laboratory were found to be correct, based on the data generated by the laboratory.

The laboratory properly identified and quantified the soil Aroclor-1242 PE sample (A4B99, PE No. ASX0181). No qualifications were applied.

The laboratory properly identified and quantified the soil Aroclor-1260 PE sample (A4C00, PE No. AS1508). No qualifications were applied.



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Please contact the undersigned at (978) 552-2100 if you have any questions or need further information.

Very truly yours,

WESTON SOLUTIONS, INC.
Region I START

William W. Mahany
Principal Project Scientist

John Burton
Lead Chemist

email cc: Jennifer Feranda (CLP PO - Region II) - DV Letter w/Data Tables, and ORDA Form only – Feranda.jennifer@epa.gov

Attachments:
Table I: Overall Evaluation of Soil Data
Data Summary Key
Acronym List
Data Summary Tables 1 and 2
DV Worksheets
PE Sample Score Reports (included in DV worksheets)
Field Sampling Notes (including a copy of sampler's COC Records)
CSF Audit (DC-2 Form) - Evidence Audit Photocopy (Including CSF Receipt/Transfer Form)
DQO Summary Form

S:\12100008\Analytical\Case_43395\A4B16\A4B16_val_.doc



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# TABLE I

## JARD COMPANY INC
## Case No. 43395; SDG No. A4B16

### Overall Evaluation of Soil Data

| AROCLORs | | | | | |
|---|---|---|---|---|---|
| DQO (list all DQOs) | Sampling and/or Analytical Method Appropriate . Yes or No | Measurement Error | | Sampling Variability** | Potential Usability Issues |
| | | Analytical Error | Sampling Error* | | |
| 1. To obtain sufficient data from surface and subsurface soil samples collected at the Jard Company site for PCB (Aroclor) analysis, to document potential source areas located on and off the property, and to document contamination in the soil and sediment associated with source areas located on the property. | *Analytical Method:*<br><br>Yes,<br>SOM01.2<br><br>*Sampling Method:*<br><br>Yes,<br>Hand Augers, and Stainless Steel Scoops. | Refer to qualifications in attached Data Summary Table 1. | Refer to qualifications in attached Data Summary Table 1. | | None. |

* The evaluation of "sampling error" cannot be completely assessed in data validation.
** Sampling variability is not assessed in data validation.





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## DATA SUMMARY KEY
## ORGANIC DATA VALIDATION

| | | |
|---|---|---|
| J | = | The associated numerical value is an estimated quantity. |
| R | = | The data are unusable (compound may or may not be present). Resampling and reanalysis are necessary for verification. The R replaces the numerical value or SQL. |
| U | = | The compound was analyzed for, but not detected. The associated numerical value is the SQL or the adjusted SQL. |
| UJ | = | The compound was analyzed for, but not detected. The associated numerical value is the estimated SQL. |
| EB | = | The compound was identified in an aqueous EB that was used to assess field contamination associated with soil/sediment samples. |
| TB | = | The compound was identified in an aqueous TB that was used to assess field contamination associated with soil/sediment samples. |
| BB | = | The compound was identified in an aqueous BB that was used to assess field contamination associated with soil/sediment samples. |



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# ACRONYM LIST
# ORGANIC DATA VALIDATION

| | |
|---|---|
| AQ | aqueous |
| AQ FB | aqueous field blank |
| BB | Bottle Blank |
| B/N | base/neutral compound |
| °C | degrees Celsius |
| CC | Continuing Calibration |
| CCV | Continuing Calibration Verification |
| CLP | Contract Laboratory Program |
| COC | Chain-of-Custody record |
| COR | Contracting Officer Representative |
| CRQL | Contract Required Quantitation Limit |
| CSF | Complete SDG File |
| %D | percent difference |
| DAS | Delivery of Analytical Services |
| DMC | Deuterated Monitoring Compound |
| DQO | Data Quality Objective |
| DV | Data Validation |
| DW | drinking water |
| EB | Equipment Blank |
| EPA | Environmental Protection Agency |
| GC/ECD | Gas Chromatograph/Electron Capture Detector |
| GC/MS | Gas Chromatograph/Mass Spectrometry |
| GW | groundwater |
| IC | Initial Calibration |
| IS | Internal Standard |
| kg | kilogram |
| L | liter |
| LCS | Laboratory Control Sample |
| LFB | Laboratory Fortified Blank |
| MDL | Method Detection Limit |
| µg | microgram |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| NA | Not Applicable |
| ND | non-detected result |
| ng | nanogram |
| NERL | New England Regional Laboratory |
| OSC | On-Scene Coordinator |
| ORDA | Organic Regional Data Assessment |
| PAH | polynuclear aromatic hydrocarbon |
| PCB | polychlorinated biphenyl compound |
| PEST/PCB | pesticide/polychlorinated biphenyl compound |
| PE | Performance Evaluation |
| Pos | positive result |
| QC | Quality Control |
| %R | percent recovery |
| RPD | Relative Percent Difference |
| RRF | Relative Response Factor |
| RSD | Relative Standard Deviation |
| SDG | Sample Delivery Group |
| SOW | Statement of Work |
| SQL | Sample Quantitation Limit |
| S/S | soil/sediment |
| S/S (m) | soil/sediment medium level |
| START | Superfund Technical Assessment and Response Team |
| SVOC | semivolatile organic compound |
| SW | surface water |
| TB | Trip Blank |
| TCL | Target Compound List |
| TDD | Technical Direction Document |
| TIC | Tentatively Identified Compound |
| TR | Traffic Report |
| VOC | volatile organic compound |
| WESTON | Weston Solutions, Inc. |



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SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

**DATA SUMMARY TABLE 1**
**AROCLOR IN SOIL ANALYSIS**
**µg/Kg**

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | | | A4B81 | | A4B82 | | A4B83 | | A4B84 | | A4B85 | | A4B86 | A4B87 |
| SAMPLE LOCATION | | | P005-SS-06 | | P005-SS-06 | | P011-SS-07 | | P011-SS-04 | | P005-SS-02 | | P007-SS-01 | P010-SS-04 |
| STATION LOCATION | | | JCS-345 | | JCS-347 | | JCS-172 | | JCS-164 | | JCS-334 | | JCS-270 | JCS-219 |
| LABORATORY NUMBER | | | E1904-03 | | E1904-04 | | E1904-05 | | E1904-06 | | E1904-07 | | E1904-08 | E1904-09 |
| COMPOUND | MDL | CRQL | | | | | | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1221 | 7.8 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1232 | 1.3 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1242 | 6.2 | 33 | 63 | | 47 | U | 43 | U | 42 | U | 60 | | 44 U | 41 U |
| Aroclor-1248 | 2.7 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1254 | 3.2 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1260 | 3.2 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1262 | 14 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| Aroclor-1268 | 6.6 | 33 | 48 | U | 47 | U | 43 | U | 42 | U | 47 | U | 44 U | 41 U |
| DILUTION FACTOR | | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | 1.0 | 1.0 |
| DATE SAMPLED | | | 4/11/2013 | | 4/11/2013 | | 4/9/2013 | | 4/9/2013 | | 4/11/2013 | | 4/10/2013 | 4/10/2013 |
| DATE EXTRACTED | | | 4/22/2013 | | 4/22/2013 | | 4/22/2013 | | 4/22/2013 | | 4/22/2013 | | 4/22/2013 | 4/22/2013 |
| DATE ANALYZED | | | 4/23/2013 | | 4/23/2013 | | 4/23/2013 | | 4/23/2013 | | 4/23/2013 | | 4/23/2013 | 4/23/2013 |
| SAMPLE WEIGHT (GRAMS) | | | 30.09 | | 30.07 | | 30.06 | | 30.04 | | 30.05 | | 30.07 | 30.03 |
| % SOLID | | | 69.1 | | 70.0 | | 76.9 | | 79.5 | | 69.9 | | 74.1 | 81.3 |

**NOTES:** µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

DATA SUMMARY TABLE 1
AROCLOR IN SOIL ANALYSIS
µg/Kg

| SAMPLE NUMBER | | | A4B88 | A4B89 | A4B90 | A4B91 | A4B92 | A4B93 | A4B94 |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE LOCATION | | | P010-SS-03 | P010-SS-21 | P020-SS-04 | P020-SS-03 | P020-SS-07 | P020-SS-07 | P020-SS-08 |
| STATION LOCATION | | | JCS-217 | JCS-577 | JCS-456 | JCS-454 | JCS-464 | JCS-465 | JCS-466 |
| LABORATORY NUMBER | | | E1904-12 | E1904-13 | E1904-14 | E1904-15 | E1904-16 | E1904-17 | E1904-18 |
| COMPOUND | MDL | CRQL | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1221 | 7.8 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1232 | 1.3 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1242 | 6.2 | 33 | 39 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1248 | 2.7 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1254 | 3.2 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1260 | 3.2 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1262 | 14 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| Aroclor-1268 | 6.6 | 33 | 41 U | 40 U | 41 U | 42 U | 42 U | 41 U | 52 U |
| DILUTION FACTOR | | | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| DATE SAMPLED | | | 4/10/2013 | 4/10/2013 | 4/15/2013 | 4/15/2013 | 4/15/2013 | 4/15/2013 | 4/12/2013 |
| DATE EXTRACTED | | | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 |
| DATE ANALYZED | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 |
| SAMPLE WEIGHT (GRAMS) | | | 30.07 | 30.05 | 30.09 | 30.1 | 30.04 | 30.08 | 30.05 |
| % SOLID | | | 80.6 | 82.3 | 81.1 | 78.5 | 78.9 | 79.6 | 62.9 |

**NOTES:** µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.



HRS Reference #87

SITE: JARD COMPANY INC
CASE: 43395 SDG: A4B16
LABORATORY: CHEMTECH
CONSULTING GROUP

DATA SUMMARY TABLE 1
AROCLOR IN SOIL ANALYSIS
µg/Kg

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NUMBER | | | A4B95 | A4B96 | A4B97 | A4B98 | | | |
| SAMPLE LOCATION | | | P020-SS-01 | P020-SS-10 | P020-SS-01 | P020-SS-09 | | | |
| STATION LOCATION | | | JCS-449 | JCS-473 | JCS-450 | JCS-471 | | | |
| LABORATORY NUMBER | | | E1904-19 | E1904-20 | E1904-21 | E1904-22 | | | |
| COMPOUND | MDL | CRQL | | | | | | | |
| Aroclor-1016 | 2.6 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1221 | 7.8 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1232 | 1.3 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1242 | 6.2 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1248 | 2.7 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1254 | 3.2 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1260 | 3.2 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1262 | 14 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| Aroclor-1268 | 6.6 | 33 | 62 U | 42 U | 46 U | 38 U | | | |
| DILUTION FACTOR | | | 1.0 | 1.0 | 1.0 | 1.0 | | | |
| DATE SAMPLED | | | 4/12/2013 | 4/15/2013 | 4/12/2013 | 4/15/2013 | | | |
| DATE EXTRACTED | | | 4/22/2013 | 4/22/2013 | 4/22/2013 | 4/22/2013 | | | |
| DATE ANALYZED | | | 4/23/2013 | 4/23/2013 | 4/23/2013 | 4/23/2013 | | | |
| SAMPLE WEIGHT (GRAMS) | | | 30.01 | 30.1 | 30.05 | 30.07 | | | |
| % SOLID | | | 53.5 | 78.1 | 72.2 | 86.7 | | | |

**NOTES:** µg/Kg = micrograms per Kilogram
All results are reported on a Dry Weight Basis.
CRQL = Contract Required Quantitation Limit
MDL = Method Detection Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
R = Value is Rejected.
* = Reported value is from diluted analysis.

**SITE: JARD COMPANY INC**
**CASE: 43395 SDG: A4B16**
**LABORATORY: CHEMTECH CONSULTING GROUP**

**DATA SUMMARY TABLE 2**
**AROCLOR AQUEOUS ANALYSIS**
**µg/L**

| | SAMPLE NUMBER | | A4B16 | A4B54 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SAMPLE LOCATION | | RB-44 | RB-30 | | | | | |
| | STATION LOCATION | | JCW-027 | JCW-028 | | | | | |
| | LABORATORY NUMBER | | E1904-01 | E1904-02 | | | | | |
| COMPOUND | MDL | CRQL | | | | | | | |
| Aroclor-1016 | 0.08 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1221 | 0.29 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1232 | 0.03 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1242 | 0.03 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1248 | 0.02 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1254 | 0.05 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1260 | 0.04 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1262 | 0.2 | 1.0 | 1.0 U | 1.0 U | | | | | |
| Aroclor-1268 | 0.06 | 1.0 | 1.0 U | 1.0 U | | | | | |
| DILUTION FACTOR | | | 1.0 | 1.0 | | | | | |
| DATE SAMPLED | | | 4/15/2013 | 4/15/2013 | | | | | |
| DATE EXTRACTED | | | 4/19/2013 | 4/19/2013 | | | | | |
| DATE ANALYZED | | | 4/23/2013 | 4/23/2013 | | | | | |
| SAMPLE VOLUME (mL) | | | 1000 | 1000 | | | | | |

**NOTES:** µg/L = micrograms per Liter
MDL= Method Detection Limit
CRQL = Contract Required Quantitation Limit
U = Value is Non-Detected.
UJ = Value is Non-Detected, and Detection Limit is Estimated.
J = Value is Estimated.
* = Reported value is from diluted analysis.
mL = milliLiter

## REGION I, EPA-NE ORGANIC REGIONAL DATA ASSESSMENT (ORDA)*

Case No.: 43395 | Site Name: JARD Company

SDG No.: A4B16 | No. of Samples/Matrix: 18/Soil 2/AQFB

Lab Name: Chemtech Consulting | Validation Contract: WESTON

SOW#/Contract#: SOM01.2 | Validator's Name: John Burton

EPA-NE DV Tier Level: Tier II | Date DP Rec'd by EPA-NE: 5/8/13

TPO/PO: **ACTION ____ FYI ✓ | DV Completion Date: 5/14/13

### ANALYTICAL DATA QUALITY SUMMARY

| | VOC | SVOC | PEST | ARO |
|---|---|---|---|---|
| 1. Preservation and Contractual Holding Times: | NA | NA | NA | o |
| 2. GC/MS / GC/ECD Instrument Performance Check: | | | | |
| 3. Initial Calibration: | | | | |
| 4. Continuing Calibration: | | | | |
| 5. Blanks: | | | | |
| 6. DMCs or Surrogate Compounds: | | | | |
| 7. Internal Standards: | | | NA | NA |
| 8. Matrix Spike/Matrix Spike Duplicate: | | | | o |
| 9. Sensitivity Check: | | | | |
| 10. PE samples - Accuracy Check: | | | | |
| 11. Target Compound Identification: | NA | NA | | |
| 12. Compound Quantitation and Reported QLs: | | | | |
| 13. Tentatively Identified Compounds: | | | NA | NA |
| 14. Semivolatile Cleanup/Pesticide/PCB Cleanup: | NA | | | |
| 15. Data Completeness: | | | | o |
| 16. Overall Evaluation of Data: | | | | |

o = Data had no problems or were qualified due to minor contractual problems.
m = Data were qualified due to major contractual problems.
z = Data were rejected as unusable due to major contractual problems.

**Action Items (z items):**

**Areas of Concern (m items):**

**Comments:**

*This form assesses the analytical data quality in items of contractual compliance only. It does not assess sampling errors and/or non-contractual analytical issues that affect data quality.

** Check "ACTION" only if contractual defects resulted in reduced payment/data rejection recommendations.

Validator: Jil Bruto Date: 5/14/12

EPA - NE
Data Validation Worksheet Cover Page - Page 1

Site Name: JARD Company
TDD No.: 12-10-0008
Task No.: 0850-49

**REGION I ORGANIC DATA VALIDATION**

The following data package has been validated:

Lab Name: ChemTech Consulting
Case No.: 43395
SDG No.: A4B16
No. of Samples/Matrix:

SOW #/Contract #: SOM01.2
Sampling Dates: 4/9-4/15/13
Shipping Dates: 4/17-4/18/13
Date Rec'd by Lab: 4/18-4/19/13

Traffic Report Sample Nos: A4B16, A4B54, A4B81-A4B89, A4B90-A4B98

Trip Blank No.: NA
Equipment Blank No: A4B16, A4B54 (A4B12, A4B13, A4B14, A4B15, A4B16?)
Field Duplicate Nos: A4B88, A4B89
PE Nos: A4B99, A4C00 from SDG?

The Region I, EPA - NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, revision 12/96 was used to evaluate the data and/or approved modifications to the EPA - NE Functional Guidelines were used to evaluate the data and are attached to this cover page: (attached modified criteria from EPA approved QAPjP or amendment to the QAPjP).

A Tier II or a Tier III evaluation was used to validate the data. If a Tier II validation with a partial Tier III was used, then identify samples, parameters, etc. that received partial Tier III validation:

The data were evaluated based upon the following parameters:

- Overall Evaluation of Data
- Data Completeness (CSF Audit - Tier I)
- Preservation and Technical Holding Times
- GC/MS and GC/ECD Instrument Performance Check
- Initial and Continuing Calibrations
- Blanks
- Surrogate Compounds
- Internal Standards
- Matrix Spike/Matrix Spike Duplicate
- Field Duplicates
- Sensitivity Check
- PE Samples/Accuracy Check
- Target Compound Identification
- Compound Quantitation and Reported Quantitation Limits
- TICs
- Semivolatile and Pesticide/PCB Cleanup
- System Performance

Region I Definitions and Qualfiers:

A - Acceptable Data
J - Numerical value associated with compound is an estimated quantity.
R - The data are rejected as unusable. The R replaces the numerical value or sample quantitation limit.
U - Compound not detected at that numerical sample quantitation limit.
UJ - The sample quantitation limit is an estimated quantity.
TB, EB - Compound detected in aqueous trip blank or aqueous equipment blank associated with soil/sediment samples.

Validator's Name: JC Bentz Company Name: WESTON Phone Number: 978-552-2100

Date Validation Started: 5/8/13 Date Validation Completed: 5/14/13

EPA - NE
Data Validation Worksheet Cover Page - Page 2

Check if all criteria are met and no hard copy worksheet provided. Indicate NA if worksheet is not applicable to analytical method. Note: There is no standard worksheet for System Performance, however, the validator must document all system performance issues in the Data Validation Memorandum.

VOA/SV Worksheets:

| | | |
|---|---|---|
| VOA/SV-Pest/PCB | COMPLETE SDG FILE (CSF) AUDIT | NA - Aroclors only |
| VOA/SV-Pest/PCB-I | PRESERVATION AND HOLDING TIMES | @ |
| VOA/SV-II | GC/MS INSTRUMENT PERFORMANCE CHECK (TUNING) | |
| VOA/SV-III | INITIAL CALIBRATION | |
| VOA/SV-IV | CONTINUING CALIBRATION | |
| VOA/SV-Pest/PCB-V-A | BLANK ANALYSIS | |
| VOA/SV-Pest/PCB-V-B | BLANK ANALYSIS | |
| VOA-VI | VOA SURROGATE SPIKE RECOVERIES | |
| SV-VI | SV SURROGATE SPIKE RECOVERIES | |
| VOA/SV-VII | INTERNAL STANDARD PERFORMANCE | |
| VOA/SV-Pest/PCB-VIII | MATRIX SPIKE/MATRIX SPIKE DUPLICATE | |
| VOA/SV-Pest/PCB-IX | FIELD DUPLICATE PRECISION | |
| VOA/SV-Pest/PCB-X | SENSITIVITY CHECK | NA |
| VOA/SV-Pest/PCB-XI | ACCURACY CHECK/ PE SCORE SHEETS | @ |
| VOA/SV-Pest/PCB-XII | TARGET COMPOUND IDENTIFICATION | NA |
| VOA/SV-Pest/PCB-XIII | SAMPLE QUANTITATION | |
| VOA/SV-XIV | TENTATIVELY IDENTIFIED COMPOUNDS | |
| VOA/SV-XV | SEMIVOLATILE CLEANUP | |
| TABLE II - WORKSHEET | OVERALL EVALUATION OF DATA | * |

Pest/ARO Worksheets:

| | | |
|---|---|---|
| VOA/SV-Pest/PCB | COMPLETE SDG FILE (CSF) AUDIT | |
| VOA/SV-Pest/PCB-I | PRESERVATION AND HOLDING TIMES | @ |
| Pest/PCB-IIA | GC/ECD INSTRUMENT PERFORMANCE CHECK-RESOLUTION | |
| Pest/PCB-IIB | GC/ECD INSTRUMENT PERFORMANCE CHECK-RETENTION TIMES | |
| Pest/PCB-IIC | GC/ECD INSTRUMENT PERFORMANCE CHECK-ACCURACY CHECK OF INITIAL CALIBRATION | |
| Pest/PCB-IID | GC/ECD INSTRUMENT PERFORMANCE CHECK-PESTICIDE DEGRADATION | |
| Pest/PCB-III | INITIAL CALIBRATION | |
| Pest/PCB-IV | CONTINUING CALIBRATION | |
| VOA/SV-Pest/PCB-V-A | BLANK ANALYSIS | |
| VOA/SV-Pest/PCB-V-B | BLANK ANALYSIS | |
| Pest/PCB-VI | SURROGATE COMPOUNDS: SPIKE RECOVERIES AND RETENTION TIME SHIFT | |
| Pest/PCB-VII | PESTICIDE CLEANUP | |
| VOA/SV-Pest/PCB-VIII | MATRIX SPIKE/MATRIX SPIKE DUPLICATE | |
| VOA/SV-Pest/PCB-IX | FIELD DUPLICATE PRECISION | |
| VOA/SV-Pest/PCB-X | SENSITIVITY CHECK | NA |
| VOA/SV-Pest/PCB-XI | ACCURACY CHECK/ PE SCORE SHEETS | @ |
| Pest/PCB-XII | COMPOUND IDENTIFICATION | |
| VOA/SV-Pest/PCB-XIII | SAMPLE QUANTITATION | |
| TABLE II - WORKSHEET | OVERALL EVALUATION OF DATA | * |

@ - always included
* - See DV Memo

I certify that all criteria were met for the worksheets checked above.

Signature: JBurta Name: John Burta

Date: 5/14/13

COMPLETE SDG FILE (CSF) AUDIT

Organic Fractions: Case 43395 SDG A4B16

| Missing Information | Date Lab Contacted | Date Received |
|---|---|---|
| None | | |

Validator: Jyl C Burton Date: 5/14/13

EPA-NE - Data Validation Worksheet
VOA/SV - **Pest/ARO - 2**

Sampler: Hornok Company: WESTON Contacted: Yes No Date: _____

**1. PRESERVATION AND HOLDING TIMES**

Cooler Temp: 5°, 5° Documented: Page: 275, 276

Circle sample numbers with exceeded technical holding times or omitted preservation.
List all required preservation codes and circle omitted preservation codes.
Circle all exceeded technical holding times.
Identify extraction technique after "# of Days"/(*Extraction Code).

| | | | | PEST | | | | | | ARO | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sample No. (TR No.) | Matrix | Pres. Code | Date Sampled | Date Extracted | # of Days from Samp. to Ext. | *Ext. Code | Date Analyzed | # of Days from Ext. to Anal. | Action | Date Extracted | # of Days from Samp. to Ext. | *Ext. Code | Date Analyzed | # of Days from Ext. to Anal. | Action |
| A4B81 | S/S | 1, 3 | 4/1/13 | | | | | | | 4/23/13 | 11 | SOX | 4/23/13 | 1 | none |
| A4B82 | | | | | | | | | | | | | | | |
| A4B83 | | | 4/9/13 | | | | | | | | 13 | | | | |
| A4B84 | | | | | | | | | | | | | | | |
| SBA4B85 | | | 4/1/13 | | | | | | | | 11 | | | | |
| A4B86 | | | 4/10/13 | | | | | | | | 12 | | | | |
| A4B87 | | | | | | | | | | | | | | | |
| A4B88 | | | | | | | | | | | | | | | |
| A4B89 | | | | | | DIA | | | | | | | | | |
| A4B90 | | | 4/15/13 | | | | | | | | 7 | | | | |
| A4B91 | | | | | | | | | | | | | | | |
| A4B92 | | | | | | | | | | | | | | | |
| A4B93 | | | | | | | | | | | | | | | |
| A4B94 | | | 4/12/13 | | | | | | | | 10 | | | | |
| A4B95 | | | | | | | | | | | | | | | |
| A4B96 | | | 4/15/13 | | | | | | | | 7 | | | | |
| A4B97 | | | 4/12/13 | | | | | | | | 10 | | | | |
| A4B98 | | | 4/15/13 | | | | | | | | 7 | | | | |
| A4B16 | AQ FB | | | | | | | | | 4/19/13 | 4 | SEP | 4/23/13 | 4 | none |
| A4B54 | ↓ | ↓ | ↓ | | | | | | | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |

**Preservation Code:**
1. Cool @ 4°C (± 2°C)
2. Preserve with HCl to ≤ pH 2.
3. Protect from light.
4. Freeze.
5. Room temperature (avoid excessive heat).
6. Encore sampler (48 hour hold time).

***Extraction Code:**
L/L - Liquid/Liquid
SON - Sonication
SEP - Separatory funnel
SOX - Soxhlet
SPE - Solid Phase Extraction

**Action Code:**
J - Estimate (J) detected values.
UJ - Estimate (UJ) non-detected values.
R - Reject (R) non-detected values.

**Matrix Codes:**
AQ - Aqueous
S/S - Soil/Sediment
AQ FB - Aqueous Field Blank

Validator: _____ Date: 5/9/13

EPA - NE - Data Validation Worksheets
Forms 7J, 7L, and 7N

All Criteria Met _____

**III. PESTICIDE CONTINUING CALIBRATION**

Continuing Calibration - PEM, INDC

List the compounds which did not meet the percent difference (%D) criteria of < 25% on either column (PEST), ≤ 15% (PCB).

| Date | Compound | %D | | Samples Affected |
|---|---|---|---|---|
| | | Column I | Column II | |
| 4/24/13 | 1016 pk1 | | 15.3 | A4B16, A4B54 |
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no qualification

**Qualification of data:**

Estimate (J) all positive results when the %D >25% Pest, or ≥ 15% PCB. No qualification is required for non-detected results.

Validator: _____ Date: 5/9/13

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/ARO - V

V. Rinsate Blank Tabulation - list the applicable rinsate (equipment) blanks below:

| Rinsate Blank No. | Sample No. | Equipment Rinsed to Generate the RB | Matrix Applies to: |
|---|---|---|---|
| RB- 40 | A4B12 | Auger | SS |
| RB- 41 | A4B13 | Auger, Scoop | SS |
| RB- 42 | A4B14 | Auger, Scoop | ↓ |
| RB- 43 | A4B15 | Auger | ↓ |
| RB- 44 | A4B16 | Auger, Scoop | ↓ |
| RB- | | | |

Matrix Codes: SS - surface soil
SD - sediment
SO - source soil
SB - soil boring
GW - groundwater
DW - drinking water
SW - surface water

Note: Apply each RB only to the matrix to which it corresponds. For example, apply the hand auger RB to the soil samples, but not to the surface water samples.

If more than one hand auger/soil sample RB was collected, the RBs may be batched and the highest hit from the batch used to determine the action levels. However, if one RB exhibits an unusual amount of contamination, apply this RB to only the associated samples. Do not batch this RB and apply to all samples of the same matrix.

Validator: [signature] Date: 5/14/13

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/ARO - V- A

Concentration Level: Low or Medium

**V. BLANK ANALYSIS** - list the blank contamination found in the laboratory blanks.

Sampler: Hanok Company: WESTON Contacted: Yes No Date: _____

**1. Laboratory: Method, Storage, and Instrument Blanks**

| Date Extracted | Date Analyzed | VOC, SVOC, or P/PCB | Matrix | Sample No. | Blank Type | Instrument or Column | Compound | Conc. (units) |
|---|---|---|---|---|---|---|---|---|
| 4/19/13 | 4/23/13 | PCB | AQ | ABLK52 | Method | ECD-B | ND | |
| 4/22/13 | 4/23/13 | PCB | Soil | ABLK55 | Method | ECD-B | ND | |
| | 4/22/13 | PCB | AQ | AIBLK01 | Instrument | | ND | |
| | 4/23/13 | | | AIBLK02 | | | ND | |
| | 4/23/13 | | | AIBLK03 | | | ND | |
| | 4/24/13 | | | AIBLK04 | | | ND | |

Validator: _____ Date: 5/9/13

PEST/ARO Method Blanks: If %D is >100% (PEST) or >500% (ARO) , then not a positive hit and therefore not a contaminant.
PEST Instrument Blanks: If not present on both columns, then not a positive and therefore not a contaminant.
Do not use blanks used to clean the instrument after a contaminated sample to set Action Levels.

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/ARO - V- A

**V. BLANK ANALYSIS** - list the blank contamination found in the field blanks.

Concentration Level: Low or Medium

Sampler: Horaok Company: WESTON Contacted: Yes No Date:

**2. Field: Equipment (Rinsate) and Trip Blanks.**

| Date Extracted | Date Analyzed | VOC, SVOC, or P/PCB | Matrix | Sample No. | Blank Type | Instrument or Column | Compound | Conc. (units) | Qualifier due to Lab blanks |
|---|---|---|---|---|---|---|---|---|---|
| 4/11/13 | 4/12/13 | PCB | AQ | A4B12 | Equipment | ECD_O | ND | | |
| ↓ | ↓ | ↓ | ↓ | A4B13 | ↓ | ↓ | ↓ | | |
| 4/15/13 | 4/19/13 | | | A4B14 | | | | | |
| ↓ | ↓ | | | A4B15 | | ↓ | | | |
| 4/22/13 | 4/23/13 | | | A4BK | | ECD_A | ND | | |

Validator: JCBurton Date: 5/9/13

PEST/ARO Field Blanks: If %D is >100% (PEST) or >500% (ARO) then not a positive hit and therefore not a contaminant.
Use the last column to evaluate laboratory blank contamination on EB and TB contamination. If result qualified as undetected (U) due to laboratory contamination, then this result can not be used to apply an EB or TB qualifier.

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/ARO - V- B1

**V. BLANK ANALYSIS**

**3. Blank Actions:** **Actions Apply to Aqueous (AQ) Samples**

| Compound | Blank with Max. Conc. | Date Blank Sampled/ Analyzed | Max. Conc. (ug/L) | Action Level (ug/L) | Sample QL (ug/L) | Samples Affected | Action |
|---|---|---|---|---|---|---|---|
| N Detect | Lab | | | | | AQ FB | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
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| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| | Lab | | | | | " | U |
| N Detect | Lab, Equip, or Trip* | | | | | AQ Field Samples | U |
| | Lab, Equip, or Trip* | | | | | (SW, GW, | U |
| | Lab, Equip, or Trip* | | | | | MW, DW, etc.) | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |
| | Lab, Equip, or Trip* | | | | | " | U |

* - Circle one

**Applicable Lab Blanks Include:**
MB - Method Blanks
HB - Holding Blanks
IB - Instrument Blanks
SB - Storage Blanks
CUB- Cleanup Blank

**AQ FB Include:**
Equip - Equipment Blank (rinsate)
Trip - Trip Blank

**AQ Field Samples Include:**
SW - Surface Waters
GW - Groundwaters
MW - Monitoring Wells
DW - Drinking Waters

Comments:

Validator: J. A. Sutton

Date: 5/9/13

EPA-NE - Data Validation Worksheet
VOA/SV - Pest/ARO - V- B2

**V. BLANK ANALYSIS**

**3. Blank Actions:** **Actions Apply to Soil/Sediment (S/S) or Solid Samples**

| Compound | Blank with Max. Conc. | Date Blank Sampled/ Analyzed | Max. Conc. | Action Level (ug/kg) | Sample QL (ug/kg) | Samples Affected | Action |
|---|---|---|---|---|---|---|---|
| | Lab, NaHSO4, or MeOH* | | | | | S/S Samples | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | Lab, NaHSO4, or MeOH* | | | | | " | U |
| | | | | (ug/L) | | | |
| N Detect | EB or TB* | | | None | | S/S Samples | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | EB or TB* | | | None | | " | EB or TB* |
| | * - Circle one | | | | | | * - Circle one |

**Applicable Lab Blanks Include:**
MB - Method Blanks
HB - Holding Blanks
IB - Instrument Blanks
SB - Storage Blanks
CUB- Cleanup Blank

**FB Include:**
Equip - Equipment Blank (rinsate)
Trip - Trip Blank
NaHSO4 - Sodium Bisulfate
MeOH - Methanol

Comments:

Validator: JC Dustin

Date: 5/9/13

All Criteria Met _____

**VI. SURROGATE SPIKE RECOVERIES - PESTICIDES/PCBS**

List the percent recoveries which do not meet the method QC acceptance criteria.

| Sample No. | TCX | | DCB | | Action | |
|---|---|---|---|---|---|---|
| | Column 1 | Column 2 | Column 1 | Column 2 | Detects | Non-detects |
| A4B91 | | | | 29 | A | A |
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TCX - Tetrachloro-m-xylene DCB - Decachlorobiphenyl

| QC Limits | 30-150 | 30-150 |
|---|---|---|

**Qualification of data:**

1. No action is taken when a sample is analyzed at a dilution.
2. No action is required when only one of the four surrogates is outside the QC acceptance criteria and the recovery is > 10%.
1. Estimate (J, UJ) all positive and non-detected results if any two surrogates are < the QC acceptance criteria.
2. Estimate (J) all positive results if any two surrogates are > the QC acceptance criteria.
3. Reject (R) all non-detected results and estimate (J) all positive results if any one surrogate is < 10%.

| Sample Results | One or more surrogates < 10% | Two or more surrogates 10% ≤ %R < LL | All surrogates LL ≤ %R ≤ UL | Two or more surrogates > UL |
|---|---|---|---|---|
| Detects | J | J | A | J |
| Non-detects | R | UJ | A | A |

LL - Lower Limit UL - Upper Limit

Validator: _____ Date: 5/9/13

EPA - NE - Data Validation Worksheet
VOA/SV - Pest/PCB -XI

**XI. ACCURACY CHECK (Performance Evaluation Results)** - List all analytes that are outside criteria.

**SDG No.:** from SDG A4B99 **Case:** L/M

Are more than one-half the PE analytes within criteria for each parameter? Yes No

Always submit this sheet and attach PE score sheets

| PE Sample No. | Ampule No. | Parameter | Type of PE | Matrix | Analyte | Conc. | Region I EPA PE Scores* | Samples Affected | Action |
|---|---|---|---|---|---|---|---|---|---|
| A4B99 | | PCB | single blind | soil | 1242 | L/M | Pass | | |
| A4C00 | | ↓ | | ↓ | 1254/1260 | L/M | Pass | | |
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*For Region I PE indicate the Region I PE Score report result: Action High, Acion Low, TCL Miss, or TCL Contaminant.

Validator: JC Burton Date: 5/9/13

# PES SCORING EVALUATION REPORT



Lab Name: Chemtech Consulting Group
Lab Code: CHEM
Contract: EPW11030
Case No.: 43395
SAS/Client No.: NA
SDG No.: A4B99
Matrix: Soil
Lab Sample ID: E1924-01
Lab File ID: PB004808.D
Date Received: 04/19/2013
Date Extracted: 04/22/2013
Date Analyzed: 04/23/2013
Sample Wt./Vol. (g/mL): 30.1 g
% Moisture: 0.0
Decanted: No
Extraction Type: SOXH
Conc. Extract Vol. (uL): 10000
Injection Vol. (uL): 1.0
GPC Cleanup: No
pH: NA
Sulfur Cleanup: No
Dilution Factor: 1.0
Units: ug/Kg

Analysis Method: SOM01.2
Scoring Method: SOM01.2
Comments:

| CAS No. | Analyte | Laboratory Results | | PES Evaluation | |
|---|---|---|---|---|---|
| | | Concentration | Q | | |
| 53469-21-9 | Aroclor-1242 | 880 | D | PASS | Within Limits |
| **** | END Main Analytes | ********** | **** | **** | ********** |
| **** | END All Analytes | ********** | **** | **** | ********** |

# PES SCORING EVALUATION REPORT



Lab Name: Chemtech Consulting Group
Contract: EPW11030
SDG No.: A4B99
Lab File ID: PB004809.D
Date Analyzed: 04/23/2013
Decanted: No
Injection Vol. (uL): 1.0
Sulfur Cleanup: No

Case No.: 43395
Matrix: Soil
Date Received: 04/19/2013
Sample Wt./Vol. (g/mL): 30.0 g
Extraction Type: SOXH
GPC Cleanup: No
Dilution Factor: 1.0

Lab Code: CHEM
SAS/Client No.: NA
Lab Sample ID: E1924-02
Date Extracted: 04/22/2013
% Moisture: 0.0
Conc. Extract Vol. (uL): 10000
pH: NA
Units: ug/Kg

Analysis Method: SOM01.2
Scoring Method: SOM01.2
Comments:

| CAS No. | Analyte | Laboratory Results | | PES Evaluation | |
|---|---|---|---|---|---|
| | | Concentration | Q | | |
| 11096-82-5 | Aroclor-1260 | 840 | D | PASS | Within Limits |
| **** | END Main Analytes | ********** | **** | **** | ********** |
| **** | END All Analytes | ********** | **** | **** | ********** |

EPA - NE - Data Validation Worksheet
VOA/SV - Pest/PCB - XIII

**XIII. SAMPLE QUANTITATION**

If no PE, do sample calculation.

Recalculate, from the raw data, the concentration for one positive detect and one reported sample quantitation limit (SQL) for a non-detect in a diluted sample or soil sample per fraction. (Note: Although Section XIII, C 2. a. requires that one calculation for each fraction in each sample be performed, the validator is only required to reproduce an example, for each fraction, of one positive detect and one SQL calculation on this worksheet.)

| Fraction | | Calculation* | |
|---|---|---|---|
| **VOC** | | Detect: | Non-detect QL: |
| Sample No.: | | | |
| Reported Compound: | | | |
| Reported Value: | | | |
| Non-detected Compound: | | | |
| Reported Quantitation Limit: | | | |
| **SVOC** | | Detect: | Non-detect QL: |
| Sample No.: | | | |
| Reported Compound: | | | |
| Reported Value: | | | |
| Non-detected Compound: | | | |
| Reported Quantitation Limit: | | | |
| **P/PCB** | | Detect: $\frac{(58479)(10000)(1)(1)}{(95263)(1)(30.1)(.69)} = 29.3$ + $\frac{(21056)(10000)(1)(1)}{(428453)(1)(30.1)(.69)} = 237$ + $\frac{(93565)(10000)(1)(1)}{(330792)(1)(30.1)(.69)} = 136.2$ / 3 = 63.1 | Non-detect QL: $33 \times \frac{(30g)(10000\mu l)(1)}{(30.1)(10000)(.69)}$ = 47.7 → 48 ✓ |
| Sample No.: | A4881 | | |
| Reported Compound: | 1242 | | |
| Reported Value: | 63 | | |
| Non-detected Compound: | 1260 | | |
| Reported Quantitation Limit: | 48U | | |

* - NA for Tier II if PE score is OK.

Do all soil/sediment samples have % solids greater than 30%? (Y) N If solids <30%, have sample volumes been increased sufficiently to compensate? Y N

If no. list sample numbers_____

Validator: [signature] Date: 5/9/13

1545 hrs: Soil/source sample SO-91A (Sample #: JCS-125) was collected with a hand auger at a depth of 0 to 10 inches from the northeastern corner of the Jard property and later submitted for PCB field screening analysis.
In addition, soil/source sample SB-10A (Sample #: JCS-154) was collected using a Geoprobe macrocore from a depth of 0.4 to 1.3 feet bgs from soil boring SB-10 and later submitted for PCB field screening analysis.

1600 hrs: START personnel completed soil boring activities at location SB-10. Soil boring SB-10 was completed to a depth of 2 feet bgs due to refusal. Team backfilled sample hole with sand and bentonite.
Soil/source sample SO-92A (Sample #: JCS-126) was collected with a hand auger at a depth of 0 to 8 inches from the northeastern corner of the Jard property and later submitted for PCB field screening analysis.

1615 hrs: Soil/source sample SO-93A (Sample #: JCS-127) was collected with a plastic scoop at a depth of 0 to 2 inches bgs from an area along the northeastern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.

1635 hrs: Equipment rinsate blank sample RB-06 (Sample #: JCW-020: CLP #: A4B09) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with soil/source sampling activities.

1640 hrs: Equipment rinsate blank sample RB-07 (Sample #: JCW-021: CLP #: A4B10) was collected from the Geoprobe macrocore system sampling equipment and is associated with soil/source sampling activities.

1700 hrs: START personnel secured IDW drums, secured the site and departed the Jard property.

**9 April 2013 (Tuesday) – Soil/Source and Surface Soil Sampling**
Weather: Cloudy, high 50 to low 60 °F

0700 hrs: START members Kelly, Hornok, Bitzas, Ackerman, Dupree, Robinson, Saylor, and Sharp arrived at the Jard property. EPA SAM Martha Bosworth had previously arrived on-site. In addition, Chemist Clifford also arrived on-site.

0715 hrs: START HSC Kelly reviewed the site HASP and conducted a tailgate health and safety meeting for all on-site START personnel, including reviews of the physical hazards (uneven terrain, trips-slips-falls, heavy lifting, traffic, potential adverse weather conditions), chemical hazards (PCBs), Radiation (Not encountered previously but will be monitored) and biological hazards (ticks, poison ivy, animals). Personnel reviewed and signed the HASP documentation, as needed. START members completed calibration checks on air monitoring instrument; MultiRAE Plus, LEL, O2, H2S, CO, and PID meter. Background ambient readings: LEL = 0%; $O_2$ = 20.9%; $H_2S$ = 0 ppm; CO = 0 ppm; and VOC = 0 ppm.
START Team established decontamination area and conduct decontamination of non-dedicated equipment. Non-dedicated equipment (augers, metal scoops, etc.) will be decontaminated after the collection of each sample, and prior to use for the collection of other samples.

0800 hrs: START members Kelly, Robinson, and Scesny began marking sample locations and documenting property features on the Park Street residential properties.

0810 hrs: Soil/source sample SO-95A (Sample #: JCS-185) was collected with a hand auger at a depth of 0 to 8 inches bgs from an area along the northwestern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.

0815 hrs: Soil/source sample SO-94A (Sample #: JCS-184) was collected with a hand auger at a depth of 0 to 12 inches bgs from an area along the northwestern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.

0830 hrs: Soil/source sample SO-96A (Sample #: JCS-186) was collected with a hand auger at a depth of 0 to 12 inches bgs from an area along the northern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.
In addition, soil/source sample SO-97A (Sample #: JCS-187) was collected with a hand auger at a depth of 0 to 18 inches bgs from an area along the northern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.

0840 hrs: Soil/source sample SO-97B (Sample #: JCS-188) was collected with a hand auger at a depth of 18 to 30 inches bgs from an area along the northern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.

0855 hrs: Soil/source sample SO-98A (Sample #: JCS-189) was collected with a hand auger at a depth of 0 to 12 inches bgs from an area along the northern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.
In addition, soil/source sample SO-99A (Sample #: JCS-190) was collected with a hand auger at a depth of 0 to 8 inches bgs from an area along the northern edge of the building footprint on the Jard property and later submitted for PCB field screening analysis.

1000 hrs: START members Kelly and Hornok met with Allen Watson at property P009 to discuss the drinking water supply well located in the basement of the residence on the property and former operations at the Jard property. Mr. Allen Watson verbally provided the following information during the discussion: The drinking water well, located in the basement of his mothers house, was used until recently to supply the residence and attached apartment with potable water. Drinking water samples collected by the VT DEC indicated elevated concentrations of PCBs in the well which prompted the state to order the well abandoned. A potable water supply line was extended to the residence, which is now supplied water from public drinking water supply sources. The former private drinking water supply well in the basement was observed by START personnel to be constructed with a 2.0 foot diameter terra cotta pipe extending approximately 3.0 feet BGS. According to Mr. Watson, the bottom of the dug well contained gravel. START personnel observed the gravel base. Based on measurements, START personnel noted approximately 15.5 inches of water was contained within the well.
Mr. Watson also provided the following information about operations at the Jard property: Mr. Watson worked at the facility from 1970 to 1974 providing maintenance support. Capacitors were manufactured at the plant. Most were sold to Fredor. Shielded pole motors were also manufactured and sold to General Electric. Capacitors that didn't pass inspection would be boxed up and sent to the town landfill for disposal. The PCB oil contained within the bad capacitors was not emptied or drummed prior to disposal. In addition, used oil would be containerized and brought to the Bennington Dump and Kocher Drive Dump where it would be dumped into pits. In addition, oil contaminated with water would be disposed of in the same manner. Also, water from an on-site well, located along the southeastern portion of the property, where the telephone poles and large pile currently exist, was used to cool the impregnator. This cooling included a closed loop system. However, on numerous occasions, gaskets would fail and oil would come in direct contact and mix with the water, which was disposed of in an on-site dry well also located in the southeastern portion of the property. Mr. Watson explained that one of his jobs was to replace the failed gaskets, so he observed and worked within the PCB oil/water mixture on several occasions. He recalled laying on his back, being covered with the oil/water mixture replacing the gaskets on numerous occasions.

1050 hrs: Surface soil sample P011-SS-02A (Sample #: JCS-158) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-02, located at the northern boundary of the property in the brush, and later submitted for PCB field screening analysis.

1100 hrs: Surface soil sample P011-SS-04A (Sample #: JCS-163) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-04, located in the center of the yard between the two gardens, and later submitted for PCB field screening analysis.

In addition, surface soil sample P011-SS-07A (Sample #: JCS-170) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-07, located in the northeast corner of the property (adjacent to the dog kennel), and later submitted for PCB field screening analysis.

START geologist Kelly continued to conduct classification of sample matrix materials using the modified Burmiester soil classification and to prepare sample aliquots for field screening.

1105 hrs: Surface soil sample P011-SS-04B (Sample #: JCS-164) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-04 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P011 due to refusal.

1110 hrs: Surface soil sample P011-SS-02B (Sample #: JCS-159) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-02 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P011-SS-07B (Sample #: JCS-171) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-07 (see above) and later submitted for PCB field screening analysis.

1125 hrs: Surface soil sample P011-SS-07C (Sample #: JCS-172) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P011-SS-07 (see above) and later submitted for PCB field screening analysis.

1135 hrs: Surface soil sample P011-SS-02C (Sample #: JCS-160) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P011-SS-02 (see above) and later submitted for PCB field screening analysis.

1140 hrs: Surface soil sample P011-SS-05A (Sample #: JCS-165) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-05, located along the eastern boundary of the property, and later submitted for PCB field screening analysis.

1145 hrs: Surface soil sample P011-SS-05B (Sample #: JCS-166) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-05 (see above) and later submitted for PCB field screening analysis.

1150 hrs: Surface soil sample P011-SS-05C (Sample #: JCS-167) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P011-SS-05 (see above) and later submitted for PCB field screening analysis.

1155 hrs: Surface soil sample P011-SS-09A (Sample #: JCS-176) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-09, located along the northern boundary of the property in the brush, and later submitted for PCB field screening analysis.

1200 hrs: Surface soil sample P011-SS-01A (Sample #: JCS-155) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-01, located to the northeast of the house in a low-lying area, and later submitted for PCB field screening analysis.

1210 hrs: Surface soil sample P011-SS-01B (Sample #: JCS-156) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-01 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P011-SS-09B (Sample #: JCS-177) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-09 (see above) and later submitted for PCB field screening analysis.

1220 hrs: Surface soil sample P011-SS-01C (Sample #: JCS-157) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P011-SS-01 (see above) and later submitted for PCB field screening analysis.

1225 hrs: Surface soil sample P011-SS-09C (Sample #: JCS-178) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P011-SS-09 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P011-SS-10A (Sample #: JCS-179) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-10, located directly adjacent to the standing water from the sump pump outfall, and later submitted for PCB field screening analysis.

1230 hrs: Surface soil sample P011-SS-08A (Sample #: JCS-173) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-08, located directly adjacent to the sump pump outfall pipe, and later submitted for PCB field screening analysis.

In addition, surface soil sample P011-SS-10B (Sample #: JCS-180) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-10 (see above) and later submitted for PCB field screening analysis.

1235 hrs: Surface soil sample P011-SS-10C (Sample #: JCS-181) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P011-SS-10 (see above) and later submitted for PCB field screening analysis.

1240 hrs: Surface soil sample P011-SS-06A (Sample #: JCS-168) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-06, located in the northwest corner of the property directly adjacent to Park Street, and later submitted for PCB field screening analysis.

In addition, surface soil sample P011-SS-08B (Sample #: JCS-174) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-08 (see above) and later submitted for PCB field screening analysis.

1250 hrs: Surface soil sample P011-SS-08C (Sample #: JCS-175) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P011-SS-08 (see above) and later submitted for PCB field screening analysis.

1255 hrs: Surface soil sample P011-SS-06B (Sample #: JCS-169) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-06 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P011-SS-06 due to refusal.

1300 hrs: Surface soil sample P011-SS-03A (Sample #: JCS-161) and surface soil sample field duplicate P011-SS-103A (Sample #: JCS-205) were collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P011 at surface soil sample location P011-SS-03, located along the brush at the western boundary of the property, and later submitted for PCB field screening analysis.

1310 hrs: Surface soil sample P011-SS-03B (Sample #: JCS-162) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P011-SS-03 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P011-SS-03 due to refusal.

1450 hrs: Surface soil sample P021-SS-03A (Sample #: JCS-196) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P021 at surface soil sample location P021-

SS-03, located at the eastern boundary of the property along Bowen Road, and later submitted for PCB field screening analysis.
In addition, surface soil sample P021-SS-05A (Sample #: JCS-202) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P021 at surface soil sample location P021-SS-05, located in the vegetable garden adjacent to the southwest corner of the house, and later submitted for PCB field screening analysis.

1455 hrs: Surface soil sample P021-SS-03B (Sample #: JCS-197) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P021-SS-03 (see above) and later submitted for PCB field screening analysis.

1500 hrs: Surface soil sample P021-SS-02A (Sample #: JCS-194) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P021 at surface soil sample location P021-SS-02, located along the northern boundary directly adjacent to the shed, and later submitted for PCB field screening analysis.
In addition, surface soil sample P021-SS-03C (Sample #: JCS-198) and surface soil sample field duplicate P021-SS-104C (Sample #: JCS-199) were collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P021-SS-03 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P021-SS-05B (Sample #: JCS-203) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P021-SS-05 (see above) and later submitted for PCB field screening analysis.

1505 hrs: Surface soil sample P021-SS-05C (Sample #: JCS-204) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P021-SS-05 (see above) and later submitted for PCB field screening analysis.

1510 hrs: Surface soil sample P021-SS-02B (Sample #: JCS-195) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P021-SS-02 (see above) and later submitted for PCB field screening analysis.

1520 hrs: Surface soil sample P021-SS-01A (Sample #: JCS-191) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P021 at surface soil sample location P021-SS-01, located at the southwest corner of the property, and later submitted for PCB field screening analysis.

1530 hrs: Surface soil sample P021-SS-01B (Sample #: JCS-192) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P021-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P021-SS-04A (Sample #: JCS-200) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P021 at surface soil sample location P021-SS-04, located at the northwest corner of the property, and later submitted for PCB field screening analysis.

1540 hrs: Surface soil sample P021-SS-01C (Sample #: JCS-193) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P021-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P021-SS-04B (Sample #: JCS-201) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P021-SS-04 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected from surface soil sample location P021-SS-04 due to refusal.

1545 hrs: Equipment rinsate blank sample RB-08 (Sample #: JCW-022: CLP #: A4B11) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with soil/source sampling activities.
START Team Member reviewed and turned in completed soil/sources data sheets for each sample location.

1550 hrs: Equipment rinsate blank sample RB-40 (Sample #: JCW-023: CLP #: A4B12) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with surface soil sampling activities.

1615 hrs: START personnel secured IDW drums, secured the site and departed the Jard property.

**10 April 2013 (Wednesday) – Surface Soil Sampling**

Weather: Showers, low to mid 50 °F

0730 hrs: START members Kelly, Hornok, Bitzas, Ackerman, Dupree, Robinson, Saylor, and Sharp arrived at the Jard property. In addition, SAM Bosworth and Chemist Clifford also arrived on-site.

0745 hrs: START HSC Kelly reviewed the site HASP and conducted a tailgate health and safety meeting for all on-site START personnel, including reviews of the physical hazards (uneven terrain, trips-slips-falls, heavy lifting, traffic, potential adverse weather conditions), chemical hazards (PCBs), Radiation (Not encountered previously but will be monitored) and biological hazards (ticks, poison ivy, dogs, animals). Personnel reviewed and signed the HASP documentation, as needed. START members completed calibration checks on air monitoring instrument; MultiRAE Plus, LEL, O2, H2S, CO, and PID meter. Background ambient readings: LEL = 0%; $O_2$ = 20.9%; $H_2S$ = 0 ppm; CO = 0 ppm; and VOC = 0 ppm.
START Team established decontamination area and conduct decontamination of non-dedicated equipment. Non-dedicated equipment (augers, metal scoops, etc.) will be decontaminated after the collection of each sample, and prior to use for the collection of other samples.

0815 hrs: Sample aliquots for PCB field screening, collected to date between 8 April and 9 April, were transferred to EPA chemist Clifford for processing and PCB field screening analyses.
START geologist Kelly continued to conduct classification of sample matrix materials using the modified Burmiester soil classification and to prepare sample aliquots for field screening.

0825 hrs: Surface soil sample P010-SS-02A (Sample #: JCS-211) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-02, located to the west of the garage, and later submitted for PCB field screening analysis.

0830 hrs: Surface soil sample P010-SS-09A (Sample #: JCS-232) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-09, located at the western edge of the yard, and later submitted for PCB field screening analysis.

0835 hrs: Surface soil sample P010-SS-02B (Sample #: JCS-212) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-02 (see above) and later submitted for PCB field screening analysis.

0840 hrs: Surface soil sample P010-SS-09B (Sample #: JCS-233) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-09 (see above) and later submitted for PCB field screening analysis.

0845 hrs: Surface soil sample P010-SS-02C (Sample #: JCS-213) and surface soil sample field duplicate P010-SS-105C (Sample #: JCS-214) were collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-02 (see above) and later submitted for PCB field screening analysis.

0850 hrs: Surface soil sample P010-SS-09C (Sample #: JCS-234) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-09 (see above) and later submitted for PCB field screening analysis.

0900 hrs: Surface soil sample P010-SS-03A (Sample #: JCS-215) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-

SS-03, located directly adjacent to the house on the south side, and later submitted for PCB field screening analysis.

In addition, surface soil sample P010-SS-10A (Sample #: JCS-235) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-10, located in the center of the backyard, and later submitted for PCB field screening analysis.

0905 hrs: Surface soil sample P010-SS-10B (Sample #: JCS-236) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-10 (see above) and later submitted for PCB field screening analysis.

0910 hrs: Surface soil sample P010-SS-03B (Sample #: JCS-216) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-03 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P010-SS-10C (Sample #: JCS-237) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-10 (see above) and later submitted for PCB field screening analysis.

0915 hrs: Surface soil sample P010-SS-07A (Sample #: JCS-226) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-07, located near the western boundary of the property, and later submitted for PCB field screening analysis.

0920 hrs: Surface soil sample P010-SS-03C (Sample #: JCS-217) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-03 (see above) and later submitted for PCB field screening analysis.

0930 hrs: Surface soil sample P010-SS-04A (Sample #: JCS-218) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-04, located adjacent to surface soil sample location P010-SS-03, and later submitted for PCB field screening analysis.

In addition, surface soil sample P010-SS-07B (Sample #: JCS-227) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-07 (see above) and later submitted for PCB field screening analysis.

0935 hrs: Surface soil sample P010-SS-01A (Sample #: JCS-208) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-01, located directly adjacent to the porch at the southwest corner of the house, and later submitted for PCB field screening analysis.

In addition, surface soil sample P010-SS-04B (MS/MSD) (Sample #: JCS-219) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-04 (see above) and later submitted for PCB field screening analysis.

0940 hrs: Surface soil sample P010-SS-07C (Sample #: JCS-228) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P010-SS-07 (see above) and later submitted for PCB field screening analysis.

0945 hrs: Surface soil sample P010-SS-01B (Sample #: JCS-209) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-01 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P010-SS-04C (Sample #: JCS-220) was collected with a hand auger at a depth of 12 to 20 inches bgs from surface soil sample location P010-SS-04 (see above) and later submitted for PCB field screening analysis.

0955 hrs: Surface soil sample P010-SS-01C (Sample #: JCS-210) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-01 (see above) and later submitted for PCB field screening analysis.

1000 hrs: Surface soil sample P010-SS-08A (Sample #: JCS-229) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-08, located at the northwest corner of the property, and later submitted for PCB field screening analysis.
In addition, equipment rinsate blank sample RB-41 (Sample #: JCW-024: CLP #: A4B13) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with surface soil sampling activities.

1005 hrs: Surface soil sample P010-SS-05A (Sample #: JCS-221) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-05, located directly adjacent to the shed at the southwest corner of the yard, and later submitted for PCB field screening analysis.
In addition, surface soil sample P010-SS-08B (Sample #: JCS-230) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-08 (see above) and later submitted for PCB field screening analysis.

1015 hrs: Surface soil sample P010-SS-05B (Sample #: JCS-222) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-05 (see above) and later submitted for PCB field screening analysis.

1020 hrs: Surface soil sample P010-SS-08C (Sample #: JCS-231) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-08 (see above) and later submitted for PCB field screening analysis.

1040 hrs: Surface soil sample P010-SS-06A (Sample #: JCS-223) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P010 at surface soil sample location P010-SS-06, located in a pile to the west of surface soil sample location P010-SS-05, and later submitted for PCB field screening analysis.

1045 hrs: Surface soil sample P009-SS-07A (Sample #: JCS-254) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-07, located at the southwest corner of the property in the brush/wooded area, and later submitted for PCB field screening analysis.

1050 hrs: Surface soil sample P010-SS-06B (Sample #: JCS-224) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P010-SS-06 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P009-SS-07B (Sample #: JCS-255) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-07 (see above) and later submitted for PCB field screening analysis.

1055 hrs: Surface soil sample P009-SS-11A (Sample #: JCS-266) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-11, located along the western boundary in an area of high contamination from previous sampling rounds, and later submitted for PCB field screening analysis.

1100 hrs: Surface soil sample P010-SS-06C (Sample #: JCS-225) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P010-SS-06 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P009-SS-07C (Sample #: JCS-256) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-07 (see above) and later submitted for PCB field screening analysis.

1115 hrs: Surface soil sample P009-SS-10A (Sample #: JCS-263) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-10, located along the northern boundary of the property adjacent to the property marker, and later submitted for PCB field screening analysis.

In addition, surface soil sample P009-SS-11B (Sample #: JCS-267) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-11 (see above) and later submitted for PCB field screening analysis.

1120 hrs: Surface soil sample P009-SS-10B (Sample #: JCS-264) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-10 (see above) and later submitted for PCB field screening analysis.

1125 hrs: Surface soil sample P009-SS-11C (Sample #: JCS-268) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-11 (see above) and later submitted for PCB field screening analysis.

1130 hrs: Surface soil sample P009-SS-10C (Sample #: JCS-265) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-10 (see above) and later submitted for PCB field screening analysis.

1255 hrs: Surface soil sample P009-SS-01A (Sample #: JCS-238) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-01, located directly adjacent to the paved driveway and the southeast corner of the house, and later submitted for PCB field screening analysis.

In addition, surface soil sample P009-SS-05A (Sample #: JCS-249) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-05, located south of the patch of trees in the center of the yard, and later submitted for PCB field screening analysis.

1300 hrs: Surface soil sample P009-SS-05B (Sample #: JCS-250) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-05 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P009-SS-09A (Sample #: JCS-260) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-09, located in the center of the yard in a low-lying spot, and later submitted for PCB field screening analysis.

1305 hrs: Surface soil sample P009-SS-01B (Sample #: JCS-239) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-01 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P009-SS-01 due to refusal.

In addition, surface soil sample P009-SS-05C (Sample #: JCS-251) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-05 (see above) and later submitted for PCB field screening analysis.

Also, surface soil sample P009-SS-09B (Sample #: JCS-261) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-09 (see above) and later submitted for PCB field screening analysis.

1310 hrs: Surface soil sample P009-SS-08A (Sample #: JCS-257) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-08, located directly to the north of the patch of pine trees, and later submitted for PCB field screening analysis.

In addition, surface soil sample P009-SS-09C (Sample #: JCS-262) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-09 (see above) and later submitted for PCB field screening analysis.

1315 hrs: Surface soil sample P009-SS-02A (Sample #: JCS-240) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-02, located near the southwest corner of the house, and later submitted for PCB field screening analysis.

1320 hrs: Surface soil sample P009-SS-08B (Sample #: JCS-258) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-08 (see above) and later submitted for PCB field screening analysis.

1325 hrs: Surface soil sample P009-SS-02B (Sample #: JCS-241) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-02 (see above) and later submitted for PCB field screening analysis.

1330 hrs: Surface soil sample P009-SS-02C (Sample #: JCS-242) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-02 (see above) and later submitted for PCB field screening analysis.

1355 hrs: Surface soil sample P009-SS-03A (Sample #: JCS-243) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-03, located directly adjacent to the sump pump outfall, and later submitted for PCB field screening analysis.

In addition, surface soil sample P009-SS-06A (Sample #: JCS-252) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-06, located near the northwest corner of the dirt driveway, and later submitted for PCB field screening analysis.

Also, surface soil sample P009-SS-08C (Sample #: JCS-259) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-08 (see above) and later submitted for PCB field screening analysis.

1400 hrs: Surface soil sample P009-SS-03B (Sample #: JCS-244) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-03 (see above) and later submitted for PCB field screening analysis.

1405 hrs: Surface soil sample P009-SS-03C (Sample #: JCS-245) was collected with a hand auger at a depth of 12 to 20 inches bgs from surface soil sample location P009-SS-03 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P009-SS-06B (Sample #: JCS-253) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-06 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected from surface soil sample location P009-SS-06 due to refusal.

1415 hrs: Surface soil sample P009-SS-04A (Sample #: JCS-246) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P009 at surface soil sample location P009-SS-04, located at the northern boundary of the residence adjacent to the dirt driveway, and later submitted for PCB field screening analysis.

1420 hrs: Surface soil sample P009-SS-04B (Sample #: JCS-247) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P009-SS-04 (see above) and later submitted for PCB field screening analysis.

1515 hrs: Surface soil sample P009-SS-04C (Sample #: JCS-248) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P009-SS-04 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P007-SS-01A (Sample #: JCS-269) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-01, located directly adjacent to the deck at the southwest corner of the house, and later submitted for PCB field screening analysis.

1525 hrs: Surface soil sample P007-SS-01B (Sample #: JCS-270) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-01 (see above) and later submitted for PCB field screening analysis.

1530 hrs: Surface soil sample P007-SS-07A (Sample #: JCS-287) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-

SS-07, located directly south of sample location P007-SS-05, and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-08A (Sample #: JCS-290) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-08, located directly adjacent to the residence beneath the deck, and later submitted for PCB field screening analysis.
Also, surface soil sample P007-SS-09A (Sample #: JCS-293) was collected with a hand auger at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-09, located at the southwest corner of the property, and later submitted for PCB field screening analysis.

1535 hrs: Surface soil sample P007-SS-01C (Sample #: JCS-271) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-07B (Sample #: JCS-288) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-07 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P007-SS-09B (Sample #: JCS-294) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-09 (see above) and later submitted for PCB field screening analysis.

1540 hrs: Surface soil sample P007-SS-08B (Sample #: JCS-291) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-08 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-09C (Sample #: JCS-295) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-09 (see above) and later submitted for PCB field screening analysis.

1545 hrs: Surface soil sample P007-SS-07C (Sample #: JCS-289) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-07 (see above) and later submitted for PCB field screening analysis.

1550 hrs: Surface soil sample P007-SS-08C (Sample #: JCS-292) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-08 (see above) and later submitted for PCB field screening analysis.

1600 hrs: START personnel completed sample shipment preparation, organized and packaged traffic reports. START Member Kelly proceeded to deliverer samples and paperwork to FedEx, located in Menands, NY for shipment. Below is a summary of the traffic reports (TR), Airbill numbers (AB), and samples sent to the CLP Organics Laboratory (Chemtech Consulting Group) for PCB Aroclor analysis:
TR #: 1-041013-124717-0004, Master AB #: 5141 2418 0673, five aqueous equipment rinsate blank samples for PCB Aroclor analysis.
START Team Member reviewed and turned in completed surface soil data sheets for each sample location.
Sample aliquots for PCB field screening, collected to date, were transferred to EPA chemist Clifford for processing and PCB field screening analyses.

1630 hrs: START personnel secured IDW drums, secured the site and departed the Jard property.

**11 April 2013 (Thursday) – Surface Soil Sampling**
Weather: Cloudy, few sprinkles, low 40 °F

0730 hrs: START members Kelly, Hornok, Bitzas, Ackerman, Dupree, Robinson, Saylor, and Sharp arrived at the Jard property. In addition, SAM Bosworth and Chemist Clifford also arrived on-site.

0745 hrs: START HSC Kelly reviewed the site HASP and conducted a tailgate health and safety meeting for all on-site START personnel, including reviews of the physical hazards (uneven terrain, trips-slips-falls, heavy lifting, traffic concerns, potential adverse weather conditions), chemical hazards (PCBs), Radiation (Not encountered previously but will be monitored) and biological hazards (ticks, poison ivy, animals). Personnel reviewed and signed the HASP documentation, as needed. START members completed calibration checks on air monitoring instrument; MultiRAE Plus, LEL, O2, H2S, CO, and PID meter. Background ambient readings: LEL = 0%; $O_2$ = 20.9%; $H_2S$ = 0 ppm; CO = 0 ppm; and VOC = 0 ppm.
START Team established decontamination area and conduct decontamination of non-dedicated equipment. Non-dedicated equipment (augers, metal scoops, etc.) will be decontaminated after the collection of each sample, and prior to use for the collection of other samples.

0825 hrs: Surface soil sample P007-SS-04A (Sample #: JCS-278) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-04, located at the northwest corner of the property in a low-lying area, and later submitted for PCB field screening analysis.
START geologist Kelly continued to conduct classification of sample matrix materials using the modified Burmiester soil classification and to prepare sample aliquots for field screening.

0830 hrs: Surface soil sample P007-SS-03A (Sample #: JCS-275) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-03, located west of sample location P007-SS-02 at the northern boundary of the property, and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-04B (Sample #: JCS-279) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-04 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P007-SS-05A (Sample #: JCS-281) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-05, located to the east of P007-SS-04 in a low-lying area, and later submitted for PCB field screening analysis.

0835 hrs: Surface soil sample P007-SS-05B (Sample #: JCS-282) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-05 (see above) and later submitted for PCB field screening analysis.

0840 hrs: Surface soil sample P007-SS-03B (Sample #: JCS-276) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-03 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-04C (Sample #: JCS-280) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-04 (see above) and later submitted for PCB field screening analysis.

0845 hrs: Surface soil sample P007-SS-03C (Sample #: JCS-277) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-03 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-05C (MS/MSD) (Sample #: JCS-283) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-05 (see above) and later submitted for PCB field screening analysis.

0850 hrs: Surface soil sample P007-SS-02A (Sample #: JCS-272) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-

SS-02, located directly adjacent to the driveway at the northern boundary of the property, and later submitted for PCB field screening analysis.

0855 hrs: Surface soil sample P007-SS-02B (Sample #: JCS-273) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-02 (see above) and later submitted for PCB field screening analysis.

0900 hrs: Surface soil sample P007-SS-02C (Sample #: JCS-274) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P007-SS-02 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-10A (Sample #: JCS-296) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-10, located at the northeast corner of the house, and later submitted for PCB field screening analysis.

0905 hrs: Surface soil sample P007-SS-06A (Sample #: JCS-284) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P007 at surface soil sample location P007-SS-06, located at the southwest corner of the driveway, and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-06B (Sample #: JCS-285) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-06 (see above) and later submitted for PCB field screening analysis.

0915 hrs: Surface soil sample P007-SS-06C (Sample #: JCS-286) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-06 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P007-SS-10B (Sample #: JCS-297) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P007-SS-10 (see above) and later submitted for PCB field screening analysis.

0920 hrs: Surface soil sample P007-SS-10C (Sample #: JCS-298) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P007-SS-10 (see above) and later submitted for PCB field screening analysis.

0930 hrs: Surface soil sample P006-SS-01A (Sample #: JCS-299) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-01, located in the northeast corner of the property within a flower garden, and later submitted for PCB field screening analysis.

0935 hrs: Surface soil sample P006-SS-01B (Sample #: JCS-300) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-05A (Sample #: JCS-311) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-05, located at the western edge of the property adjacent to Park St in a low-lying area, and later submitted for PCB field screening analysis.

0940 hrs: Surface soil sample P006-SS-04A (Sample #: JCS-308) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-04, located at the southwest corner of the house in a low-lying area, and later submitted for PCB field screening analysis.

0945 hrs: Surface soil sample P006-SS-01C (Sample #: JCS-301) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-04B (Sample #: JCS-309) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-04 (see above) and later submitted for PCB field screening analysis.

Also, surface soil sample P006-SS-05B (Sample #: JCS-312) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-05 (see above) and later submitted for PCB field screening analysis.

0950 hrs: Surface soil sample P006-SS-04C (Sample #: JCS-310) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-04 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-05C (Sample #: JCS-313) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-05 (see above) and later submitted for PCB field screening analysis.

1000 hrs: Surface soil sample P006-SS-03A (Sample #: JCS-305) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-03, located between the north side of the house and the driveway, and later submitted for PCB field screening analysis.

1005 hrs: Surface soil sample P006-SS-03B (Sample #: JCS-306) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-03 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-07A (Sample #: JCS-317) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-07, located in a flower bed directly adjacent to the compost pile, and later submitted for PCB field screening analysis.
Also, surface soil sample P006-SS-08A (Sample #: JCS-320) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-08, located in a low-lying spot approximately 20 feet west of the shed, and later submitted for PCB field screening analysis.

1010 hrs: Surface soil sample P006-SS-03C (Sample #: JCS-307) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-03 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-07B (Sample #: JCS-318) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-07 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P006-SS-08B (Sample #: JCS-321) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-08 (see above) and later submitted for PCB field screening analysis.

1015 hrs: Surface soil sample P006-SS-07C (Sample #: JCS-319) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-07 (see above) and later submitted for PCB field screening analysis.

1020 hrs: Surface soil sample P006-SS-06A (Sample #: JCS-314) was collected with a plastic scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-06, located along the western property boundary in a low-lying area, and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-06B (Sample #: JCS-315) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-06 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P006-SS-08C (Sample #: JCS-322) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-08 (see above) and later submitted for PCB field screening analysis.

1035 hrs: Surface soil sample P006-SS-02A (Sample #: JCS-302) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-

SS-02, located directly adjacent to the southeast corner of the house within a flower bed, and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-06C (Sample #: JCS-316) was collected with a hand auger at a depth of 12 to 20 inches bgs from surface soil sample location P006-SS-06 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P006-SS-09A (Sample #: JCS-323) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-09, located within the vegetable garden directly adjacent to the gate, and later submitted for PCB field screening analysis.

1040 hrs: Surface soil sample P006-SS-02B (Sample #: JCS-303) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-02 (see above) and later submitted for PCB field screening analysis.

1045 hrs: Surface soil sample P006-SS-02C (Sample #: JCS-304) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-02 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-09B (Sample #: JCS-324) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-09 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P006-SS-10A (Sample #: JCS-326) was collected with a plastic scoop at a depth of 0 to 6 inches bgs from residential property P006 at surface soil sample location P006-SS-10, located within the vegetable garden directly north of sample P006-SS-09, and later submitted for PCB field screening analysis.

1050 hrs: Surface soil sample P006-SS-10B (Sample #: JCS-327) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P006-SS-10 (see above) and later submitted for PCB field screening analysis.

1100 hrs: Surface soil sample P006-SS-09C (Sample #: JCS-325) was collected with a hand auger at a depth of 12 to 16 inches bgs from surface soil sample location P006-SS-09 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P006-SS-10C (Sample #: JCS-328) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P006-SS-10 (see above) and later submitted for PCB field screening analysis.
Also, equipment rinsate blank sample RB-42 (Sample #: JCW-025; CLP #: A4B14) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with surface soil sampling activities.

1120 hrs: Surface soil sample P005-SS-07A (Sample #: JCS-348) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-07, located in the northwest corner of the residence in a low-lying spot, and later submitted for PCB field screening analysis.
In addition, surface soil sample P005-SS-10A (Sample #: JCS-357) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-10, located directly adjacent to a shed in the center of the yard, and later submitted for PCB field screening analysis.

1125 hrs: Surface soil sample P005-SS-07B (Sample #: JCS-349) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-07 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P005-SS-09A (Sample #: JCS-354) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-09, located along the southern edge of the property in a low-lying area, and later submitted for PCB field screening analysis.

Also, surface soil sample P005-SS-10B (Sample #: JCS-358) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-10 (see above) and later submitted for PCB field screening analysis.

1130 hrs: Surface soil sample P005-SS-07C (Sample #: JCS-350) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-07 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P005-SS-09B (Sample #: JCS-355) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-09 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P005-SS-10C (Sample #: JCS-359) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-10 (see above) and later submitted for PCB field screening analysis.

1140 hrs: Surface soil sample P005-SS-09C (Sample #: JCS-356) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-09 (see above) and later submitted for PCB field screening analysis.

1155 hrs: Surface soil sample P005-SS-04A (Sample #: JCS-340) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-04, located on the western bank of the brook directly adjacent to the footbridge, and later submitted for PCB field screening analysis.

1205 hrs: Surface soil sample P005-SS-04B (Sample #: JCS-341) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-04 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected from surface sample location P005-SS-04 due to refusal.

1210 hrs: Surface soil sample P005-SS-08A (Sample #: JCS-351) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-08, located in between the sheds adjacent to a maple tree, and later submitted for PCB field screening analysis.

1215 hrs: Surface soil sample P005-SS-08B (Sample #: JCS-352) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-08 (see above) and later submitted for PCB field screening analysis.

1220 hrs: Surface soil sample P005-SS-05A (Sample #: JCS-342) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-05, located adjacent to the driveway in the northeast corner of the property, and later submitted for PCB field screening analysis.

1225 hrs: Surface soil sample P005-SS-03A (Sample #: JCS-337) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-03, located on the western bank of the brook directly adjacent to the footbridge, and later submitted for PCB field screening analysis.
In addition, surface soil sample P005-SS-05B (Sample #: JCS-343) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-05 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P005-SS-08C (Sample #: JCS-353) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-08 (see above) and later submitted for PCB field screening analysis.

1230 hrs: Surface soil sample P005-SS-03B (Sample #: JCS-338) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-03 (see above) and later submitted for PCB field screening analysis.

1235 hrs: Surface soil sample P005-SS-05C (Sample #: JCS-344) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-05 (see above) and later submitted for PCB field screening analysis.

1240 hrs: Surface soil sample P005-SS-03C (Sample #: JCS-339) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-03 (see above) and later submitted for PCB field screening analysis.

1250 hrs: Surface soil sample P005-SS-06A (Sample #: JCS-345) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-06, located adjacent to the brook running through the property on the eastern bank, and later submitted for PCB field screening analysis.

1255 hrs: Surface soil sample P005-SS-06B (Sample #: JCS-346) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-06 (see above) and later submitted for PCB field screening analysis.

1300 hrs: Surface soil sample P005-SS-06C (Sample #: JCS-347) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-06 (see above) and later submitted for PCB field screening analysis.

1310 hrs: Surface soil sample P005-SS-01A (Sample #: JCS-329) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-01, located directly adjacent to the carport in the southeast corner of the property, and later submitted for PCB field screening analysis.

1315 hrs: Surface soil sample P005-SS-01B (Sample #: JCS-330) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-01 (see above) and later submitted for PCB field screening analysis.

1320 hrs: Surface soil sample P004-SS-05A (Sample #: JCS-372) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-05, located at the southern edge of the residence, adjacent to the gravel driveway, and later submitted for PCB field screening analysis.

1325 hrs: Surface soil sample P005-SS-01C (Sample #: JCS-332) and surface soil sample field duplicate P005-SS-106C (Sample #: JCS-333) were collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P005-SS-01 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P005-SS-02A (Sample #: JCS-334) and surface soil sample field duplicate P005-SS-107A (Sample #: JCS-335) were collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P005 at surface soil sample location P005-SS-02, located on the western bank of a brook running through the residence, and later submitted for PCB field screening analysis.

1330 hrs: Surface soil sample P005-SS-02B (Sample #: JCS-336) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P005-SS-02 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P005-SS-02 due to refusal.

In addition, surface soil sample P004-SS-05B (Sample #: JCS-373) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-05 (see above) and later submitted for PCB field screening analysis.

1335 hrs: Surface soil sample P004-SS-05C (Sample #: JCS-374) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P004-SS-05 (see above) and later submitted for PCB field screening analysis.

1345 hrs: Surface soil sample P004-SS-10A (Sample #: JCS-386) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-

SS-10, located at the southern edge of the residence, west of P004-SS-05, and later submitted for PCB field screening analysis.

1350 hrs: Surface soil sample P004-SS-10B (Sample #: JCS-387) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-10 (see above) and later submitted for PCB field screening analysis.

1355 hrs: Surface soil sample P004-SS-09A (Sample #: JCS-383) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-09, located east of the swing set, and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-10C (Sample #: JCS-388) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P004-SS-10 (see above) and later submitted for PCB field screening analysis.

1400 hrs: Surface soil sample P004-SS-02A (Sample #: JCS-363) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-02, located in the center of the yard in a low-lying area, and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-09B (Sample #: JCS-384) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-09 (see above) and later submitted for PCB field screening analysis.

1405 hrs: Surface soil sample P004-SS-04A (Sample #: JCS-369) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-04, located within the former location of an above-ground pool, and later submitted for PCB field screening analysis.

1410 hrs: Surface soil sample P004-SS-09C (Sample #: JCS-385) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P004-SS-09 (see above) and later submitted for PCB field screening analysis.

1415 hrs: Surface soil sample P004-SS-02B (Sample #: JCS-364) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-02 (see above) and later submitted for PCB field screening analysis.

1425 hrs: Surface soil sample P004-SS-02C (Sample #: JCS-365) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P004-SS-02 (see above) and later submitted for PCB field screening analysis.

1430 hrs: Surface soil sample P004-SS-04B (Sample #: JCS-370) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-04 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-07A (Sample #: JCS-378) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-07, located adjacent to the northwest corner of the house at the sump pump outfall, and later submitted for PCB field screening analysis.
Also, surface soil sample P004-SS-08A (Sample #: JCS-380) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-08, located adjacent to the swing set near the western boundary of the property, and later submitted for PCB field screening analysis.

1435 hrs: Surface soil sample P004-SS-04C (Sample #: JCS-371) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P004-SS-04 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-08B (Sample #: JCS-381) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-08 (see above) and later submitted for PCB field screening analysis.

1440 hrs: Surface soil sample P004-SS-07B (Sample #: JCS-379) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-07 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P004-SS-07 due to refusal.

1445 hrs: Surface soil sample P004-SS-01A (Sample #: JCS-360) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-01, located behind the shed at the western boundary of the property, and later submitted for PCB field screening analysis.

1450 hrs: Surface soil sample P004-SS-01B (Sample #: JCS-361) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-08C (Sample #: JCS-382) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P004-SS-08 (see above) and later submitted for PCB field screening analysis.

1455 hrs: Surface soil sample P004-SS-01C (Sample #: JCS-362) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P004-SS-01 (see above) and later submitted for PCB field screening analysis.

1510 hrs: Surface soil sample P004-SS-03A (Sample #: JCS-366) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-03, located adjacent to the house in the front yard, and later submitted for PCB field screening analysis.

1515 hrs: Surface soil sample P004-SS-03B (Sample #: JCS-367) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-03 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-06A (Sample #: JCS-375) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P004 at surface soil sample location P004-SS-06, located to the east of the shed, and later submitted for PCB field screening analysis.

1520 hrs: Surface soil sample P004-SS-03C (Sample #: JCS-368) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P004-SS-03 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P004-SS-06B (Sample #: JCS-376) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P004-SS-06 (see above) and later submitted for PCB field screening analysis.

1530 hrs: Surface soil sample P004-SS-06C (Sample #: JCS-377) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P004-SS-06 (see above) and later submitted for PCB field screening analysis.
START member Hornok discussed available PCB screening results, locations of screening results samples and potential inferences with background surface soil sample screening results. r with COR Bosworth
START Team Member reviewed and turned in completed surface soil data sheets for each sample location.
Sample aliquots for PCB field screening, collected to date, were transferred to EPA chemist Clifford for processing and PCB field screening analyses.

1630 hrs: START personnel secured IDW drums, secured the site and departed the Jard property.

**12 April 2013 (Friday) – Surface Soil Sampling**

Weather: Rain and snow, low 30 °F

0730 hrs: START members Kelly, Hornok, Bitzas, Ackerman, Dupree, Robinson, Saylor, and Sharp arrived at the Jard property.

0745 hrs: START HSC Kelly reviewed the site HASP and conducted a tailgate health and safety meeting for all on-site START personnel, including reviews of the physical hazards (uneven terrain, trips-slips-falls, heavy lifting, Traffic/driving concerns, potential adverse weather conditions), chemical hazards (PCBs), Radiation (Not encountered previously but will be monitored) and biological hazards (ticks, poison ivy, dogs, animals). Personnel reviewed and signed the HASP documentation, as needed. START members completed calibration checks on air monitoring instrument; MultiRAE Plus, LEL, O2, H2S, CO, and PID meter. Background ambient readings: LEL = 0%; $O_2$ = 20.9%; $H_2S$ = 0 ppm; CO = 0 ppm; and VOC = 0 ppm.

START Team established decontamination area and conduct decontamination of non-dedicated equipment. Non-dedicated equipment (augers, metal scoops, etc.) will be decontaminated after the collection of each sample, and prior to use for the collection of other samples.

0820 hrs: START Member Hornok spoke with COR Bosworth regarding EPA Chemist Clifford's concern regarding PCB inference in surface sampling during field screening analyses and request to send some samples to EPA NERL for confirmation analyses and check of interference. Clifford believes inference may be result of pesticide application. COR Bosworth agreed to plan to provide samples to NERL if the chemist advised. SAM Bosworth asked if she should check on details or if Clifford would make arrangements. SAM Bosworth would initiate arrangements from her end. START member Hornok indicated that samples would not be submitted until next week and look to be less than 20 samples.

0840 hrs: Surface soil sample P003-SS-01A (Sample #: JCS-389) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-01, located at the northern boundary directly east of the shed, and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-06A (Sample #: JCS-404) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-06, located in the southwest corner of the yard north of a shed, and later submitted for PCB field screening analysis.

0845 hrs: Surface soil sample P003-SS-03A (Sample #: JCS-395) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-03, located approximately 10 feet south of the horse barn, and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-06B (Sample #: JCS-405) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-06 (see above) and later submitted for PCB field screening analysis.

0850 hrs: Surface soil sample P003-SS-01B (Sample #: JCS-390) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-01 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-03B (Sample #: JCS-396) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-03 (see above) and later submitted for PCB field screening analysis.

0855 hrs: Surface soil sample P003-SS-03C (Sample #: JCS-397) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-03 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-06C (Sample #: JCS-406) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-06 (see above) and later submitted for PCB field screening analysis.

0900 hrs: Surface soil sample P003-SS-01C (Sample #: JCS-391) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-01 (see above) and later submitted for PCB field screening analysis.

START geologist Kelly continued to conduct classification of sample matrix materials using the modified Burmiester soil classification and to prepare sample aliquots for field screening.

0905 hrs: Surface soil sample P003-SS-09A (Sample #: JCS-413) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-09, located at the edge of the foundation, south of the dog kennel, and later submitted for PCB field screening analysis.

0910 hrs: Surface soil sample P003-SS-05A (Sample #: JCS-401) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-05, located in the center of the backyard in a low-lying area, and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-09B (Sample #: JCS-414) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-09 (see above) and later submitted for PCB field screening analysis.

0915 hrs: Surface soil sample P003-SS-02A (Sample #: JCS-392) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-02, located at the edge of residence adjacent to sump pump outfall of neighboring residence, and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-05B (Sample #: JCS-402) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-05 (see above) and later submitted for PCB field screening analysis.

Also, surface soil sample P003-SS-09C (Sample #: JCS-415) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-09 (see above) and later submitted for PCB field screening analysis.

0920 hrs: Surface soil sample P003-SS-02B (Sample #: JCS-393) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-02 (see above) and later submitted for PCB field screening analysis.

In addition, equipment rinsate blank sample RB-43 (Sample #: JCW-026; CLP #: A4B15) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with surface soil sampling activities.

0925 hrs: Surface soil sample P003-SS-02C (Sample #: JCS-394) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-02 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-05C (Sample #: JCS-403) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-05 (see above) and later submitted for PCB field screening analysis.

0940 hrs: Surface soil sample P003-SS-07A (Sample #: JCS-407) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-07, located in the northeast corner of the property adjacent to the gravel driveway, and later submitted for PCB field screening analysis.

In addition, surface soil sample P003-SS-08A (Sample #: JCS-410) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-08, located directly adjacent to the house by a tree, and later submitted for PCB field screening analysis.

0945 hrs: Surface soil sample P003-SS-07B (Sample #: JCS-408) was collected with a metal scoop at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-02 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P003-SS-10A (Sample #: JCS-416) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-10, located at the end of the gravel driveway, and later submitted for PCB field screening analysis.

0950 hrs: Surface soil sample P003-SS-07C (Sample #: JCS-409) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-07 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P003-SS-08B (Sample #: JCS-411) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-08 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P003-SS-10B (Sample #: JCS-417) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-10 (see above) and later submitted for PCB field screening analysis.

0955 hrs: Surface soil sample P003-SS-10C (Sample #: JCS-418) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-10 (see above) and later submitted for PCB field screening analysis.

1000 hrs: Surface soil sample P003-SS-04A (Sample #: JCS-398) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P003 at surface soil sample location P003-SS-04, located in the southwest corner of the property directly adjacent to the horse yard, and later submitted for PCB field screening analysis.
In addition, surface soil sample P003-SS-08C (Sample #: JCS-412) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-08 (see above) and later submitted for PCB field screening analysis.

1005 hrs: Surface soil sample P003-SS-04B (Sample #: JCS-399) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P003-SS-04 (see above) and later submitted for PCB field screening analysis.

1010 hrs: Surface soil sample P003-SS-04C (Sample #: JCS-400) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P003-SS-04 (see above) and later submitted for PCB field screening analysis.

1030 hrs: Background surface soil sample P020-SS-01A (Sample #: JCS-449) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-01, located along the western boundary of the northern residence, and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-08A (Sample #: JCS-466) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-08, located along the northern boundary of the northern residence adjacent to the brook, and later submitted for PCB field screening analysis.

1035 hrs: Background surface soil sample P020-SS-08B (Sample #: JCS-467) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-08 (see above) and later submitted for PCB field screening analysis.

1040 hrs: Background surface soil sample P020-SS-01B (Sample #: JCS-450) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-08C (Sample #: JCS-468) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P020-SS-08 (see above) and later submitted for PCB field screening analysis.

1045 hrs: Background surface soil sample P020-SS-01C (Sample #: JCS-451) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P020-SS-01 (see above) and later submitted for PCB field screening analysis.

1100 hrs: START personnel completed sample shipment preparation, organized and packaged traffic reports. START Member Sharp and Robinson proceeded to deliverer samples and paperwork to FedEx, located in Brattleboro, VT for shipment. Below is a summary of the traffic reports (TR), Airbill numbers (AB), and samples sent to the CLP Organics Laboratory (Chemtech Consulting Group) for PCB Aroclor analysis:
TR #: 1-041213-092831-0005, Master AB #: 5141 2418 0695, two aqueous equipment rinsate blank samples for PCB Aroclor analysis.
START Team Members reviewed and turned in completed surface soil data sheets for each sample location

1200 hrs: Remaining START personnel secured IDW drums, secured the site and departed the Jard property for the START office located in Andover, MA.

**15 April 2013 (Monday) – Surface Soil Sampling**
Weather: Partly sunny, mid 50 °F

1015 hrs: START members Kelly, Hornok, Bitzas, Dupree, Robinson, Saylor, Christine Scesny, and Sharp arrived at the Jard property.

1030 hrs: START HSC Kelly reviewed the site HASP and conducted a tailgate health and safety meeting for all on-site START personnel, including reviews of the physical hazards (uneven terrain, trips-slips-falls, heavy lifting, traffic concerns, potential adverse weather conditions), chemical hazards (PCBs), Radiation (Not encountered previously but will be monitored) and biological hazards (ticks, poison ivy, dogs/pets, snakes, animals). Personnel reviewed and signed the HASP documentation, as needed. START members completed calibration checks on air monitoring instrument; MultiRAE Plus, LEL, O2, H2S, CO, and PID meter. Background ambient readings: LEL = 0%; $O_2$ = 20.9%; $H_2S$ = 0 ppm; CO = 0 ppm; and VOC = 0 ppm.
START Team established decontamination area and conduct decontamination of non-dedicated equipment. Non-dedicated equipment (augers, metal scoops, etc.) will be decontaminated after the collection of each sample, and prior to use for the collection of other samples.

1055 hrs: Background surface soil sample P020-SS-02A (Sample #: JCS-452) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-02, located along the western boundary of the northern residence directly south of sample location P020-SS-01, and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-09A (Sample #: JCS-588) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-09, located at the eastern boundary of the northern residence along Bowen Road, and later submitted for PCB field screening analysis.

1100 hrs: Background surface soil sample P020-SS-02B (Sample #: JCS-453) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-02 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected at background surface soil sample location P020-SS-02 due to refusal.
In addition, background surface soil sample P020-SS-03A (Sample #: JCS-454) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil

sample location P020-SS-03, located in the center of the yard at the northern residence, and later submitted for PCB field screening analysis.
Also, background surface soil sample P020-SS-09B (Sample #: JCS-470) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-09 (see above) and later submitted for PCB field screening analysis.

1110 hrs: Background surface soil sample P020-SS-03B (Sample #: JCS-455) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-03 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for background surface soil sample location P020-SS-03 due to refusal.

1115 hrs: Background surface soil sample P020-SS-06A (Sample #: JCS-461) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-06, located at the northeast corner of the southern residence adjacent to the brook, and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-09C (Sample #: JCS-471 was collected with a hand auger at a depth of 12 to 20 inches bgs from surface soil sample location P020-SS-09 (see above) and later submitted for PCB field screening analysis.

1120 hrs: Background surface soil sample P020-SS-06B (Sample #: JCS-462) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-06 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for background surface soil sample location P020-SS-06 due to refusal.

1130 hrs: Background surface soil sample P020-SS-04A (Sample #: JCS-456) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-04, located at the northwest corner of the southern residence, and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-05A (Sample #: JCS-459) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-05, located directly adjacent and to the south of the driveway on the southern residence, and later submitted for PCB field screening analysis.
Also, background surface soil sample P020-SS-07A (Sample #: JCS-463) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-07, located at the southern boundary of the southern residence adjacent to the brook, and later submitted for PCB field screening analysis.

1135 hrs: Background surface soil sample P020-SS-07B (Sample #: JCS-464) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-07 (see above) and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-10A (Sample #: JCS-472) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P020 at surface soil sample location P020-SS-10, located in the center of the front yard of the southern residence, and later submitted for PCB field screening analysis.

1140 hrs: Background surface soil sample P020-SS-04B (Sample #: JCS-457) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-04 (see above) and later submitted for PCB field screening analysis.
In addition, background surface soil sample P020-SS-05B (Sample #: JCS-460) was collected with a hand auger at a depth of 6 to 10 inches bgs from surface soil sample location P020-SS-05 (see above) and later submitted for PCB field screening analysis.
Also, background surface soil sample P020-SS-07C (Sample #: JCS-465) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P020-SS-07 (see above) and later submitted for PCB field screening analysis.

Background surface soil sample P020-SS-10B (Sample #: JCS-473) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P020-SS-10 (see above) and later submitted for PCB field screening analysis.

1145 hrs: Background surface soil sample P020-SS-10C (Sample #: JCS-474) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P020-SS-10 (see above) and later submitted for PCB field screening analysis.

1150 hrs: Background surface soil sample P020-SS-04C (Sample #: JCS-458) was collected with a hand auger at a depth of 12 to 16 inches bgs from surface soil sample location P020-SS-04 (see above) and later submitted for PCB field screening analysis.

1200 hrs: Equipment rinsate blank sample RB-44 (Sample #: JCW-027: CLP #: A4B16) was collected from hand auger sampling equipment (augers, scoops, etc.) associated with surface soil sampling activities.

START geologist Kelly continued to conduct classification of sample matrix materials using the modified Burmiester soil classification and to prepare sample aliquots for field screening.

1235 hrs: Surface soil sample P002-SS-03A (Sample #: JCS-425) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-03, located in a drainage channel behind the house, and later submitted for PCB field screening analysis.

1240 hrs: Surface soil sample P002-SS-01A (Sample #: JCS-419) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-01, located on the western boundary by the tree line, and later submitted for PCB field screening analysis.

In addition, surface soil sample P002-SS-03B (Sample #: JCS-426) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-03 (see above) and later submitted for PCB field screening analysis.

1242 hrs: Surface soil sample P002-SS-08A (Sample #: JCS-440) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-08, located approximately 75 feet from the house in a low-lying area, and later submitted for PCB field screening analysis.

1245 hrs: Surface soil sample P002-SS-03C (Sample #: JCS-427) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-03 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P002-SS-09A (Sample #: JCS-443) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-09, located directly adjacent to the garage on the west side, and later submitted for PCB field screening analysis.

1250 hrs: Surface soil sample P002-SS-01B (Sample #: JCS-420) and surface soil sample field duplicate P002-SS-110B (Sample #: JCS-584) were collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-01 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P002-SS-08B (Sample #: JCS-441) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-08 (see above) and later submitted for PCB field screening analysis.

Also, surface soil sample P002-SS-09B (Sample #: JCS-444) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-09 (see above) and later submitted for PCB field screening analysis.

1255 hrs: Surface soil sample P002-SS-02A (Sample #: JCS-422) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-

SS-02, located in a low-lying area north of shed, and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-09C (Sample #: JCS-445) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-09 (see above) and later submitted for PCB field screening analysis.

1300 hrs: Surface soil sample P002-SS-01C (Sample #: JCS-421) was collected with a hand auger at a depth of 12 to 16 inches bgs from surface soil sample location P002-SS-01 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-02B (Sample #: JCS-423) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-02 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P002-SS-08C (Sample #: JCS-442) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-08 (see above) and later submitted for PCB field screening analysis.

1305 hrs: Surface soil sample P002-SS-02C (Sample #: JCS-424) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-02 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-06A (Sample #: JCS-434) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-06, located in the center of the yard in a low-lying area, and later submitted for PCB field screening analysis.

1310 hrs: Surface soil sample P002-SS-05A (Sample #: JCS-431) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-05, located directly adjacent to the house at the sump outfall, and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-06B (Sample #: JCS-435) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-06 (see above) and later submitted for PCB field screening analysis.

1315 hrs: Surface soil sample P002-SS-04A (Sample #: JCS-428) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-04, located adjacent to the utility pole, and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-06C (Sample #: JCS-436) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-06 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P002-SS-07A (Sample #: JCS-437) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-07, located in the northwest corner of the property in a compost pile at the tree line; and later submitted for PCB field screening analysis.

1320 hrs: Surface soil sample P002-SS-04B (Sample #: JCS-429) was collected with a metal scoop at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-04 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-05B (Sample #: JCS-432) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-05 (see above) and later submitted for PCB field screening analysis.

1325 hrs: Surface soil sample P002-SS-04C (Sample #: JCS-430) was collected with a metal scoop at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-04 (see above) and later submitted for PCB field screening analysis.

In addition, surface soil sample P002-SS-07B (Sample #: JCS-438) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-07 (see above) and later submitted for PCB field screening analysis.
Also, surface soil sample P002-SS-10A (Sample #: JCS-446) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P002 at surface soil sample location P002-SS-10, located approximately 10 feet from Park Street at the NE corner of the property, and later submitted for PCB field screening analysis.

1330 hrs: Surface soil sample P002-SS-05C (Sample #: JCS-433) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-05 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P002-SS-10B (Sample #: JCS-447) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P002-SS-10 (see above) and later submitted for PCB field screening analysis.

1335 hrs: Surface soil sample P002-SS-07C (Sample #: JCS-439) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P002-SS-07 (see above) and later submitted for PCB field screening analysis.

1340 hrs: Surface soil sample P002-SS-10C (Sample #: JCS-448) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P002-SS-10 (see above) and later submitted for PCB field screening analysis.

1355 hrs: Surface soil sample P001-SS-03A (Sample #: JCS-487) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-03, located approximately 20 feet south of the stream, and later submitted for PCB field screening analysis.

1400 hrs: Surface soil sample P001-SS-02A (Sample #: JCS-484) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-02, located west of a manhole cover, and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-09A (Sample #: JCS-503) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-09, located on the southern bank of the stream, 50 feet east of P001-SS-08, and later submitted for PCB field screening analysis.

1405 hrs: Surface soil sample P001-SS-02B (Sample #: JCS-485) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-02 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-03B (Sample #: JCS-488) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-03 (see above) and later submitted for PCB field screening analysis.

1410 hrs: Surface soil sample P001-SS-09B (Sample #: JCS-504) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-09 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P001-SS-09 due to refusal.
START member Hornok spoke with COR Bosworth via cellphone and discussed the status of sampling to date, field screening data results, residential soil sampling observations, CLP sample shipments, and plan for wetland sampling activities.

1415 hrs: Surface soil sample P001-SS-02C (Sample #: JCS-486) was collected with a hand auger at a depth of 12 to 20 inches bgs from surface soil sample location P001-SS-02 (see above) and later submitted for PCB field screening analysis.

1420 hrs: Surface soil sample P001-SS-06A (Sample #: JCS-496) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-

SS-06, located at the southern boundary of the property near the tree line, and later submitted for PCB field screening analysis.

1425 hrs: Surface soil sample P001-SS-03C (Sample #: JCS-489) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P001-SS-03 (see above) and later submitted for PCB field screening analysis.

1430 hrs: Surface soil sample P001-SS-04A (Sample #: JCS-490) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-04, located in the center of the yard next to a pine tree, and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-06B (Sample #: JCS-497) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-06 (see above) and later submitted for PCB field screening analysis.

1435 hrs: Surface soil sample P001-SS-04B (Sample #: JCS-491) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-04 (see above) and later submitted for PCB field screening analysis.

1440 hrs: Surface soil sample P001-SS-04C (Sample #: JCS-492) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P001-SS-04 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-06C (Sample #: JCS-498) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P001-SS-06 (see above) and later submitted for PCB field screening analysis.

1443 hrs: Surface soil sample P001-SS-07A (Sample #: JCS-499) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-07, located on the southern bank of the stream, and later submitted for PCB field screening analysis.

1450 hrs: Surface soil sample P001-SS-05A (Sample #: JCS-493) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-05, located near the western boundary of the property on the tree line, and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-07B (Sample #: JCS-500) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-07 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P001-SS-07 due to refusal.

1500 hrs: Surface soil sample P001-SS-05B (Sample #: JCS-494) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-05 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-10A (Sample #: JCS-505) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-10, located on the south side of stream at Kocher Drive and Park St intersection, and later submitted for PCB field screening analysis.

1505 hrs: Surface soil sample P001-SS-10B (Sample #: JCS-506) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-10 (see above) and later submitted for PCB field screening analysis.

1510 hrs: Surface soil sample P001-SS-05C (Sample #: JCS-495) was collected with a hand auger at a depth of 12 to 18 inches bgs from surface soil sample location P001-SS-05 (see above) and later submitted for PCB field screening analysis.
In addition, surface soil sample P001-SS-10C (Sample #: JCS-507) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P001-SS-10 (see above) and later submitted for PCB field screening analysis.

1520 hrs: Surface soil sample P001-SS-08A (Sample #: JCS-501) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-08, located on the southern bank of the stream, 50 feet east of P001-SS-07, and later submitted for PCB field screening analysis.

1530 hrs: Surface soil sample P001-SS-01A (Sample #: JCS-481) was collected with a metal scoop at a depth of 0 to 6 inches bgs from residential property P001 at surface soil sample location P001-SS-01, located directly adjacent to the residence beneath the former location of a recently demolished deck, and later submitted for PCB field screening analysis.

1535 hrs: Surface soil sample P001-SS-08B (Sample #: JCS-502) was collected with a hand auger at a depth of 6 to 10 inches bgs from surface soil sample location P001-SS-08 (see above) and later submitted for PCB field screening analysis. No 'C' interval was collected for surface soil sample location P001-SS-08 due to refusal.

1540 hrs: Surface soil sample P001-SS-01B (Sample #: JCS-482) was collected with a hand auger at a depth of 6 to 12 inches bgs from surface soil sample location P001-SS-01 (see above) and later submitted for PCB field screening analysis.

1550 hrs: Surface soil sample P001-SS-01C (Sample #: JCS-483) was collected with a hand auger at a depth of 12 to 24 inches bgs from surface soil sample location P001-SS-01 (see above) and later submitted for PCB field screening analysis.

1600 hrs: START Team Members reviewed and turned in completed surface soil data sheets for each sample location.
Sample aliquots for PCB field screening, collected to date, were transferred to EPA chemist Clifford for processing and PCB field screening analyses.

1630 hrs: START personnel secured IDW drums, secured the site and departed the Jard property.

**16 April 2013 (Tuesday) – Sediment Sampling**
Weather: Partly cloudy, [redacted]

0730 hrs: START members Kelly, Hornok, Bitzas, Dupree, Robinson, Saylor, Christine Scesny, and Sharp arrived at the Jard property.

0745 hrs: START HSC Kelly reviewed the site HASP and conducted a tailgate health and safety meeting for all on-site START personnel, including reviews of the physical hazards (uneven terrain; trips-slips-falls, working near water, heavy lifting, traffic concerns, potential adverse weather conditions), chemical hazards (PCBs), Radiation (Not encountered previously but will be monitored) and biological hazards (ticks, poison ivy, thorn bushes, snakes, dogs, animals). Personnel reviewed and signed the HASP documentation, as needed. START members completed calibration checks on air monitoring instrument; MultiRAE Plus, LEL, O2, H2S, CO, and PID meter. Background ambient readings: LEL = 0%; $O_2$ = 20.9%; $H_2S$ = 0 ppm; CO = 0 ppm; and VOC = 0 ppm.
START Team established decontamination area and conduct decontamination of non-
sample SD-50A (Sample #: JCS-556) was collected using a metal scoop at a depth of 0 to 6 inches bgs from a background wetland (PEM) area located north of the Jard property and later submitted for PCB field screening analysis.

0850 hrs: Sediment sample SD-50B (Sample #: JCS-557) was collected using a hand auger at a depth of 6 to 12 inches bgs from a background wetland (PEM) area located north of the Jard property and later submitted for PCB field screening analysis.

0855 hrs: Sediment sample SD-50C (Sample #: JCS-558) was collected using a hand auger at a depth of 12 dedicated equipment. Non-dedicated equipment (augers, metal scoops, etc.) will be

SDG# A4B16

# COPY

**USEPA CLP Organics COC (LAB COPY)**
DateShipped: 4/18/2013
CarrierName: FedEx
AirbillNo: 5141 2418 0857

## CHAIN OF CUSTODY RECORD

Case #: 43395
Cooler #: WL002/SB011

**No: 1-041813-120158-0013**
Lab: ChemTech Consulting Group
Lab Contact: Divya Mehta
Lab Phone: 908-789-8900

HRS Reference #87

| Organic Sample # | Matrix/Sampler | Coll. Method | Analysis/Turnaround | Tag/Preservative/Bottles | Station Location | Collected | Inorganic Sample # | For Lab Use Only |
|---|---|---|---|---|---|---|---|---|
| A4B81 | Soil/ START | Grab | CLP PCBs(21) | 758 (4 C) (1) | JCS-345 | 04/11/2013 12:50 | | |
| A4B82 | Soil/ START | Grab | CLP PCBs(21) | 760 (4 C) (1) | JCS-347 | 04/11/2013 13:00 | | |
| A4B83 | Soil/ START | Grab | CLP PCBs(21) | 762 (4 C) (1) | JCS-172 | 04/09/2013 11:25 | | |
| A4B84 | Soil/ START | Grab | CLP PCBs(21) | 764 (4 C) (1) | JCS-164 | 04/09/2013 11:05 | | |
| A4B85 | Soil/ START | Grab | CLP PCBs(21) | 766 (4 C) (1) | JCS-334 | 04/11/2013 13:25 | | |
| A4B86 | Soil/ START | Grab | CLP PCBs(21) | 768 (4 C) (1) | JCS-270 | 04/10/2013 15:25 | | |
| A4B87 | Soil/ START | Grab | CLP PCBs(21), CLP PCBs(21) | 770 (4 C), 771 (4 C) (2) | JCS-219 | 04/10/2013 09:30 | | |
| A4B88 | Soil/ START | Grab | CLP PCBs(21) | 773 (4 C) (1) | JCS-217 | 04/10/2013 09:20 | | |
| A4B89 | Soil/ START | Grab | CLP PCBs(21) | 776 (4 C) (1) | JCS-577 | 04/10/2013 09:20 | | |
| A4B90 | Soil/ START | Grab | CLP PCBs(21) | 778 (4 C) (1) | JCS-456 | 04/15/2013 11:30 | | |
| A4B91 | Soil/ START | Grab | CLP PCBs(21) | 780 (4 C) (1) | JCS-454 | 04/15/2013 11:00 | | |
| A4B92 | Soil/ START | Grab | CLP PCBs(21) | 782 (4 C) (1) | JCS-464 | 04/15/2013 11:35 | | |
| A4B93 | Soil/ START | Grab | CLP PCBs(21) | 784 (4 C) (1) | JCS-465 | 04/15/2013 11:40 | | |
| A4B94 | Soil/ START | Grab | CLP PCBs(21) | 786 (4 C) (1) | JCS-466 | 04/12/2013 10:30 | | |
| A4B95 | Soil/ START | Grab | CLP PCBs(21) | 788 (4 C) (1) | JCS-449 | 04/12/2013 10:30 | | |
| A4B96 | Soil/ START | Grab | CLP PCBs(21) | 790 (4 C) (1) | JCS-473 | 04/15/2013 11:40 | | |
| A4B97 | Soil/ START | Grab | CLP PCBs(21) | 792 (4 C) (1) | JCS-450 | 04/12/2013 10:40 | | |
| A4B98 | Soil/ START | Grab | CLP PCBs(21) | 794 (4 C) (1) | JCS-471 | 04/15/2013 11:15 | | |
| A4B99 | Soil/ START | Grab | CLP PCBs(21) | 796 (4 C) (1) | JCS-578 | 04/17/2013 07:00 | | |

Sample(s) to be used for Lab QC: A4B87

**Shipment for Case Complete? N**

**Samples Transferred From Chain of Custody #**
N/A

Analysis Key. CLP PCBs=SOM01.2 Aroclors

| Items/Reason | Relinquished by | Date | Received by | Date | Time | Items/Reason | Relinquished By | Date | Received by | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Samples | | 4/18/13 | Airbill # 5141 2418 0857 | 4/18/13 | 1315 | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | Samples | Airbill # 5141 2418 0857 | | Palak Shah | 4/19/13 | 935 |

(A4B98 is last sample in SDG# A4B16)

Temp 5°C



8

COPY

SDG# A4B16

**USEPA CLP Organics COC (LAB COPY)**

DateShipped: 4/17/2013
CarrierName: FedEx
AirbillNo: 5141 2418 0700

**CHAIN OF CUSTODY RECORD**

Case #: 43395
Cooler #: SB010

**No: 1-041713-120703-0010**

Lab: ChemTech Consulting Group
Lab Contact: Divya Mehta
Lab Phone: 908-789-8900

HRS Reference #87

| Organic Sample # | Matrix/Sampler | Coll. Method | Analysis/Turnaround | Tag/Preservative/Bottles | Station Location | Collected | Inorganic Sample # | For Lab Use Only |
|---|---|---|---|---|---|---|---|---|
| A4B16 | Rinsate Water/ START | Grab | CLP PCBs(21), CLP PCBs(21) | 535 (4 C), 536 (4 C) (2) | JCW-027 | 04/15/2013 12:00 | | |
| A4B54 | Rinsate Water/ START | Grab | CLP PCBs(21), CLP PCBs(21) | 617 (4 C), 618 (4 C) (2) | JCW-028 | 04/15/2013 16:30 | | |

Special Instructions: COC contains only equipment rinsate QC samples.

**Shipment for Case Complete? N**

**Samples Transferred From Chain of Custody #**

N/A

Analysis Key: CLP PCBs=SOM01.2 Aroclors

| Items/Reason | Relinquished by | Date | Received by | Date | Time | Items/Reason | Relinquished By | Date | Received by | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Samples | B Hornak | 4/17/13 | Airbill # 5141 2418 0700 | 4/18/13 | 1300 | | | | | | |
| | | | | | | Samples | Airbill # 5141 2418 0700 | | Palak Shah | 4/18/13 | 945 |

Temp 5°C

DG / ESAT

**ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET**

**FORM DC-2**

Jard Company
Weston

LABORATORY NAME : CHEMTECH CONSULTING GROUP, INC.

CITY / STATE : MOUNTAINSIDE, NJ

CASE NO : 43395 SDG NO : A4B16

SDG NOs TO FOLLOW N/A N/A

MOD. REF. NO. : N/A N/A

CONTRACT NO : EPW11030

SOW NO : SOM 01.2

RECEIVED
MAY 08 2013

MAY 08 2013

All documents delivered in the Complete SDG File (CSF) must be original documents where possible.

By _____

| | | PAGE NOS: FROM | TO | CHECK LAB | USEPA Weston |
|---|---|---|---|---|---|
| 1. | Inventory Sheet (DC-2) (Do not number) | | | ✓ | ✓ |
| 2. | SDG Narrative | 1 | 5 | ✓ | ✓ |
| 3. | SDG Cover Sheet/Traffic Report | 6 | 8 | ✓ | ✓ |
| 4. | **Trace Volatiles Data** | | | | |
| | a. **QC Summary** | | | | |
| | Deuterated Monitoring Compound Recovery (Form II VOA-1 and VOA-2) | NA | NA | ✓ | NA |
| | Matrix Spike/Matrix Spike Duplicate Recover (Form III VOA) (if requested by USEPA Region) | NA | NA | ✓ | |
| | Method Blank Summary (Form IV VOA) | NA | NA | ✓ | |
| | GC/MS Instrument Performance Check (Form V VOA) | NA | NA | ✓ | |
| | Internal Standard Area and RT Summary (Form VIII VOA) | NA | NA | ✓ | |
| | b. **Sample Data** | NA | NA | ✓ | |
| | TCL Results - Organics Analysis Data Sheet (Form I VOA-1 and VOA-2) | | | | |
| | Tentatively Identified Compounds (Form I VOA-TIC) | | | | |
| | Reconstructed total ion chromatograms (RIC) for each sample | | | | |
| | **For each sample:** | | | | |
| | Raw Spectra and background-subtracted mass spectra of target compounds identified | | | | |
| | Quantitation reports | | | | |
| | Mass Spectra of all reported TICs with three best library matches | | | | |
| | c. **Standards Data (All Instruments)** | NA | NA | ✓ | |
| | Initial Calibration Data (Form VI VOA-1, VOA-2, VOA-3) | | | | |
| | RICs and Quantitaation Reports for all Standards | | | | |
| | Continuing Calibration Data (Form VII VOA-1, VOA-2, VOA-3) | | | | |
| | RICs and Quantitation Reports for all Standards | | | | |
| | d. **Raw/Quality Control** | | | | |
| | BFB | NA | NA | ✓ | |
| | Blank Data | NA | NA | ✓ | |
| | Matrix Spike/Matrix Spike Duplicate Data (if requested by USEPA Region) | NA | NA | ✓ | |

**Evidence Audit Photocopy**

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

| CASE NO : 43395 | SDG NO : A4B16 | SDG NOs TO FOLLOW : N/A |
|---|---|---|
| N/A | N/A | MOD REF. NO : N/A |

| | | | | |
|---|---|---|---|---|
| e. **Trace SIM Data (Place at the end of the Trace Volatiles Section** | NA | NA | ✓ | NA |
| [Form I VOA-SIM; Form II VOA-SIM1 and VOA-SIM2; Form IV-VOA-SIM; Form VI VOA-SIM; Form VII VOA-SIM; Form VIII VOA-SIM, and all raw data for QC, Samples, and Standards.] | | | | |
| 5. **Low/Med Volatiles Data** | | | | |
| a. **QC Summary** | | | | |
| Deuterated Monitoring Compound Recovery (Form II VOA-1, VOA-2, VOA-3, VOA-4) | NA | NA | ✓ | |
| Matrix Spike/Matrix Spike Duplicate Recovery (Form III VOA-1 and VOA-2) (if requested by USEPA Region) | NA | NA | ✓ | |
| Method Blank Summary (Form IV VOA) | NA | NA | ✓ | |
| GC/MS Instrument Performance Check (Form V VOA) | NA | NA | ✓ | |
| Internal Standard Area and RT Summary (Form VIII VOA) | NA | NA | ✓ | |
| b. **Sample Data** | NA | NA | ✓ | |
| TCL Results - Organics Analysis Data Sheet (Form I VOA-1 and VOA-2) | | | | |
| Tentatively Identified Compounds (Form I VOA-TIC) | | | | |
| Reconstructed total ion chromatograms (RIC) for each sample | | | | |
| **For each sample:** | | | | |
| Raw Spectra and background-subtracted mass spectra of target compounds identified | | | | |
| Quantitation reports | | | | |
| Mass Spectra of all reported TICs with three best library matches | | | | |
| c. **Standards Data (All Instruments** | NA | NA | ✓ | |
| Initial Calibration Data (Form VI VOA-1, VOA-2, VOA-3) | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| Continuing Calibration Data (Form VII VOA-1, VOA-2, VOA-3) | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| d. **Raw/Quality Control (QC)Data** | | | | |
| BFB | NA | NA | ✓ | |
| Blank Data | NA | NA | ✓ | |
| Matrix Spike/Matrix Spike Duplicate Data (if requested by USEPA Region) | NA | NA | ✓ | |

Evidence Audit Photocopy

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

| CASE NO : 43395 | SDG NO : A4B16 | SDG NOs TO FOLLOW : N/A |
|---|---|---|
| N/A | N/A | MOD. REF. NO : N/A |

6. **Semivolatiles Data**

| | | | | |
|---|---|---|---|---|
| **a. QC Summary** | | | | |
| Deuterated Monitoring Compound Recovery (Form II SV-1, SV-2, SV-3, SV-4) | NA | NA | ✓ | NA |
| Matrix Spike/Matrix Spike Duplicate Recovery Summary (Form III SV-1 and SV-2) (if requested by USEPA Region) | NA | NA | ✓ | |
| Method Blank Summary (Form IV SV) | NA | NA | ✓ | |
| GC/MS Instrument Performance Check (Form V SV) | NA | NA | ✓ | |
| Internal Standard Area and RT Summary (Form VIII SV-1 and SV-2) | NA | NA | ✓ | |
| **b. Sample Data** | NA | NA | ✓ | |
| TCL Results - Organics Analysis Data Sheet (Form I SV-1 and SV-2) | | | | |
| Tentatively Identified Compounds (Form I SV-TIC) | | | | |
| Reconstructed total ion chromatograms (RIC) for each sample | | | | |
| For each sample: | NA | NA | ✓ | |
| Raw Spectra and background-subtracted mass spectra of target compounds | | | | |
| Quantitation reports | | | | |
| Mass Spectra of TICs with three best library matches | | | | |
| GPC chromatograms (if GPC is r | | | | |
| **c. Standards Data (All Instruments)** | NA | NA | ✓ | |
| Initial Calibration Data (Form VI SV-1, SV-2, SV-3) | | | | |
| RICs and Quantitation | | | | |
| Continuing Calibration Data (Form VII SV-1, S | | | | |
| RICs and Quantitation Reports for all Standards | | | | |
| **d. Raw (QC)Data** | | | | |
| DFTPP | NA | NA | ✓ | |
| Blank Data | NA | NA | ✓ | |
| MS/MSD Data (if requested by USEPA Region) | NA | NA | ✓ | |
| **e. Raw GPC Data** | NA | NA | ✓ | |

Evidence Audit Photocopy

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

| CASE NO : 43395 | SDG NO : A4B16 | SDG NOs TO FOLLOW : N/A |
|---|---|---|
| N/A | N/A | MOD. REF. NO : N/A |

| | | | | |
|---|---|---|---|---|
| Semivolatile SIM Data<br>[Form I SV-SIM; Form II SV-SIM1 and SV-SIM2; Form III-SV-SIM1 and SV-SIM2 (if required; Form IV SV-SIM; Form VI SV-SIM; Form VII SV-SIM; Form VIII SV-SIM1 and SV-SIM2; and all raw data for QC, Samples, and Standards.] | NA | NA | ✓ | NA |
| 7. **Pesticides Data** | | | | |
| a. **QC Summary** | | | | |
| Surrogate Recovery Summary (Form II PEST-1 and PEST-2) | NA | NA | ✓ | |
| Matrix Spike/Matrix Spike Duplicate Recovery Summary (Form III PEST-1 and PEST-2) | NA | NA | ✓ | |
| Laboratory Control Sample Recovery (Form III PEST-3 and PEST-4) | NA | NA | ✓ | |
| Method Blank Summary (Form IV PEST) | NA | NA | ✓ | |
| b. **Sample Data** | NA | NA | ✓ | |
| TCL Results - Organics Analysis Data Sheet (Form I PEST) | | | | |
| Chromatograms (Primary Column) | | | | |
| Chromatograms from second GC column confirmation | | | | |
| GC Integration report or data system printout | | | | |
| Manual work sheets | | | | |
| For Pesticides by GC/MS | | | | |
| Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards) | | | | |
| c. **Standards Data** | NA | NA | ✓ | |
| Initial Calibration of Single Component Analytes (Form VI PEST-1 and PEST-2) | | | | |
| Toxaphene Initial Calibration (Form VI PEST-3 and PEST-4) | | | | |
| Analyte Resolution Summary (Form VI PEST-5, per column) | | | | |
| Performance Evaluation Mixture (Form VI PEST-6) | | | | |
| Individual Standard Mixture A (Form VI PEST-7) | | | | |
| Individual Standard Mixture B (Form VI PEST-8) | | | | |
| Individual Standard Mixture C (Form VI PEST-9 and PEST-10) | | | | |
| Calibration Verification Summary (Form VII PEST-1) | | | | |
| Calibration Verification Summary (Form VII PEST-2) | | | | ✓ |

**Evidence Audit Photocopy**

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

| CASE NO : 43395 | SDG NO : A4B16 | SDG NOs TO FOLLOW : N/A |
|---|---|---|
| N/A | N/A | MOD. REF. NO : N/A |

| | | | | |
|---|---|---|---|---|
| Calibration Verification Summary (Form VII PEST-3) | | | | NA |
| Calibration Verification Summary (Form VII PEST-4) | | | | |
| Analytical Sequence (Form VIII PEST) | | | | |
| Florisil Cartridge Check (Form IX PEST-1) | | | | |
| Pesticide GPC Calibration (Form IX PEST-2) | | | | |
| Identification Summary for Single Component Analytes (Form X PEST-1) | | | | |
| Identification Summary for Toxaphene Form X PEST-2) | | | | |
| Chromatograms and data system printouts | | | | |
| A printout of Retention Times and corresponding peak areas or peak heights | | | | |
| **d. Raw QC Data** | | | | |
| Blank Data | NA | NA | ✓ | |
| Matrix Spike/Matrix Spike Duplicate Data | NA | NA | ✓ | |
| Laboratory Control Sample | NA | NA | ✓ | |
| e. Raw GPC Data | NA | NA | ✓ | |
| f. Raw Florisil Data | NA | NA | ✓ | |
| 8. Aroclor Data | | | | |
| **a. QC Summary** | | | | |
| Surrogate Recovery Summary (Form II ARO-1 and ARO-2) | 9 | 10 | ✓ | ✓ |
| Matrix Spike/Matrix Spike Duplicate Summary (Form III ARO-1 and ARO-2) | 11 | 12 | ✓ | ✓ |
| Laboratory Control Sample Recovery (Form III ARO-3 and ARO-4) | 13 | 14 | ✓ | ✓ |
| Method Blank Summary (Form IV ARO) | 15 | 16 | ✓ | ✓ |
| **b. Sample Data** | 17 | 82 | ✓ | ✓ |
| TCL Results - Organics Analysis Data Sheet (Form I ARO) | NA | NA | ✓ | ✓ |
| Chromatograms (Primary Column) | NA | NA | ✓ | ✓ |
| Chromatograms from second GC column confirmation | NA | NA | ✓ | ✓ |
| GC Integration report of data system printout | NA | NA | ✓ | ✓ |
| Manual work sheets | NA | NA | ✓ | ✓ |
| For Aroclors by GC/MS | NA | NA | ✓ | NA |

Evidence Audit Photocopy

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

| CASE NO: 43395 | SDG NO: A4B16 | SDG NOs TO FOLLOW: N/A |
|---|---|---|
| N/A | N/A | MOD. REF. NO: N/A |

| | | | | |
|---|---|---|---|---|
| Copies of raw spectra and copies of background-subtracted mass spectra of target compounds (samples & standards) | | | | NA |
| **c. Standards Data** | 83 | 163 | ✓ | ✓ |
| Aroclors Initial Calibration (Form VI ARO-1,ARO-2, and ARO-3) | | | | ✓ |
| Calibration Verification Summary (Form VII ARO-1) | | | | ✓ |
| Analytical Sequence (Form VIII ARO) | | | | ✓ |
| Identification Summary for Multicomponent Analytes (Form X ARO) | | | | ✓ |
| Chromatograms and data system printouts | | | | ✓ |
| A printout of Retention Times and corresponding peak areas or peak heights | | | | ✓ |
| **d. Raw QC Data** | | | | |
| Blank Data | 164 | 185 | ✓ | ✓ |
| Matrix Spike/Matrix Spike Duplicate Data | 186 | 193 | ✓ | ✓ |
| Laboratory Control Sample (LCS) Data | 194 | 203 | ✓ | ✓ |
| **e. Raw GPC Data (if performed)** | NA | NA | ✓ | NA |
| **9. Miscellaneous Data** | | | | |
| Original preparation and analysis forms or copies of preparation and analysis logbook pages | 204 | 270 | ✓ | ✓ |
| Internal sample and sample extract transfer chain-of-custody records | 279 | 280 | ✓ | ✓ |
| Screening records | NA | NA | ✓ | NA |
| All instrument output, including strip charts from screening activities (describe or list) | | | | |
| | | | | |
| | | | | |
| **10. EPA Shipping/Receiving Documents** | | | | |
| Airbills (No. of shipments 2) | 271 | 272 | ✓ | ✓ |
| Chain of Custody Records | 273 | 274 | ✓ | ✓ |
| Sample Tags | 283 | 288 | ✓ | ✓ |
| Sample Log-in Sheet (Lab & DC-1) | 275 | 278 | ✓ | ✓ |
| Miscellaneous Shipping/Receiving Records (describe or list) | | | | |
| | | | | |

Evidence Audit Photocopy

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET
FORM DC-2

| CASE NO : 43395 | SDG NO . A4B16 | SDG NOs TO FOLLOW : N/A |
|---|---|---|
| N/A | N/A | MOD. REF. NO : N/A |

11. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)

| | | | | |
|---|---|---|---|---|
| Sample Transfer | 279 | 280 | ✓ | ✓ |

12. Other Records (describe or list)

| | | | | |
|---|---|---|---|---|
| Telephone Communication Log | NA | NA | ✓ | N/A |
| PE Instructions | 281 | 282 | ✓ | ✓ |

13. Comments

| | | | |
|---|---|---|---|
| Completed by: (CLP Lab) | Zh. Rohani (Signature) | Zhaleh Rohani (Printed Name/Title) | 05/07/2013 (Date) |
| Verified by: (CLP Lab) | HNRajapati (Signature) | Himanshu Prajapati (Printed Name/Title) | 05/07/13 (Date) |
| Audited by: ~~(USEPA)~~ Weston | JCBurton (Signature) | John Burton / Technical Manager (Printed Name/Title) | 5/14/13 (Date) |

Evidence Audit Photocopy

Site: Jard Company
TDD: 12-10-0008
TASK: 0850

RECEIVED
MAY 08 2013
By

COPY

**EPA NEW ENGLAND**
**COMPLETE SDG FILE**
**RECEIPT / TRANSFER FORM**

HRS Reference #87

Case: 43395 SDG: A4B16

| Receipt Date | Received By : Name | Init. | Affiliation | CSF Activity | Custody Seals Present / Intact | Released To | Date |
|---|---|---|---|---|---|---|---|
| 05/08/13 | Doris Guzman | DG | ESAT | Received for Transfer | (Y) N (Y) N | WESTON | 05/08/13 |
| 5/8/13 | Bill Mahany | BM | Weston | Storyet Validation | (Y) N (Y) N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |
| | | | | | Y N Y N | | |

EPA-NE - DQO SUMMARY FORM

A separate Form should be completed for each sampling event. Refer to Attachment A for instructions on completing this form, Attachment B for a complete list of the parameter codes and Attachment C for an example of a completed form.

1. EPA Program: TSCA (CERCLA) RCRA DW NPDES CAA
Other:
Projected Date(s) of Sampling Spring (April/May) 2013
EPA Site Manager Martha Bosworth
EPA Case Team Members

Site Name Jard Company Inc
Site Location Bennington, Vermont
Assigned Site Latitude/Longitude 42° 53' 21.5" north/73° 11' 21.9" west
CERCLA Site/Spill Identifier No VTD048141741 (Include Operable Unit)
Phase: ERA SA/SI pre-RI RI (phase I, etc.) FS RD RA post-RA
(circle one) (Other: Site Reassessment)

2. QAPP Title and Revision Date Site Assessment Program Site Specific Quality Assurance Project Plan for Surface and Subsurface Soil/Source, Ground Water, and Sediment Sampling Jard Company Inc, Bennington, Vermont dated 11 January 2013
Approved by: Martha Bosworth Date of Approval: TBD
Title of Approving Official: Site Assessment Manager Organization*: EPA
*If other than EPA, record date approval authority was delegated:

EPA Oversight Project (circle one) Y (N)
Confirmatory Analysis for Field Screening (Y) N
Are comparability criteria documented? Y N
Type of EPA Oversight (circle one) PRP or FF Other:
If EPA Oversight or Confirmatory: % splits TBD

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3. a | Matrix Code[1] | SO | SO | SO | GW | GW | SD | SD | SD |
| b. | Parameter Code[2] | PCB Aroclors | PCB Aroclors | PCB Congeners | PCB Aroclors | PCB Congeners | PCB Aroclors | PCB Aroclors | PCB Congeners |
| c. | Preservation Code[3] | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| d. | Analytical Services Mechanism | DAS or CLP | DAS or CLP | CLP | DAS or CLP | DAS or CLP | DAS or CLP | DAS or CLP | CLP |
| e. | No. of Sample Locations | 65 | 28 | 2 | 21 | 2 | 60 | 60 | 60 |
| | **Field QC:** | | | | | | | | |
| f. | Field Duplicate Pairs | 4 | 2 | | 2 | 5 | 5 | 5 | 5 |
| g. | Equipment Blanks | See RB | See RB | See RB | See RB | See RB | See RB | See RB | See RB |
| h. | VOA Trip Blanks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| i. | Cooler Temperature Blanks | 1 per cooler | 1 per cooler | 1 per cooler | 1 per cooler | 1 per cooler | 1 per cooler | 1 per cooler | 1 per cooler |
| j. | Bottle Blanks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| k. | Other: | | | | | | | | |
| l. | PES sent to Laboratory | NA | 6 | TBD | 3 | TBD | NA | 3 | TBD |
| | **Laboratory QC:** | | | | | | | | |
| m. | Reagent Blank | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| n. | Duplicate | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| o. | Matrix Spike | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |
| p. | Matrix Spike Duplicate | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |
| q. | Other: | | | | | | | | |

4. Site Information
Site Dimensions Approximately 11.26 acres
List all potentially contaminated matrices Surface and subsurface soil, sediment, ground water, and residential surface soil
Range of Depth to Groundwater greater than 5 feet
Soil Types: Surface Subsurface Other:
Sediment Types: Stream Pond Estuary Wetland Other: Expected Soil/Sediment Moisture Content: High Low

1. EPA Program: TSCA (CERCLA) RCRA DW NPDES CAA
Other:
Projected Date(s) of Sampling Spring (April/May) 2013
EPA Site Manager Martha Bosworth
EPA Case Team Members

Site Name Jard Company Inc
Site Location Bennington, Vermont
Assigned Site Latitude/Longitude 42° 53' 21.5" north/73° 11' 21.9" west
CERCLA Site/Spill Identifier No VTD048141741 (Include Operable Unit)
Phase: ERA SA/SI pre-RI RI (phase I, etc.) FS RD RA post-RA
(circle one) Other: Site Reassessment

2. QAPP Title and Revision Date Site Assessment Program Site Specific Quality Assurance Project Plan for Surface and Subsurface Soil/Source, Ground Water, and Sediment Sampling Jard Company Inc, Bennington, Vermont dated 11 January 2013
Approved by: Martha Bosworth Date of Approval: TBD
Title of Approving Official: Site Assessment Manager Organization*: EPA
*If other than EPA, record date approval authority was delegated:

EPA Oversight Project (circle one) Y (N) Type of EPA Oversight (circle one) PRP or FF Other:
Confirmatory Analysis for Field Screening (Y) N If EPA Oversight or Confirmatory: % splits_TBD
Are comparability criteria documented? Y N

| 3. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a. | Matrix Code[1] | SS | SS | SS | RB | | | | |
| b. | Parameter Code[2] | PCB Aroclors | PCB Aroclors | PCB Congeners | PCB Aroclors | | | | |
| c. | Preservation Code[3] | 5 | 5 | 5 | 5 | | | | |
| d. | Analytical Services Mechanism | DAS or CLP | DAS or CLP | CLP | CLP Non-RAS | | | | |
| e. | No. of Sample Locations | 125 | 38 | 2 | 21 | | | | |
| | **Field QC:** | | | | | | | | |
| f. | Field Duplicate Pairs | 7 | 2 | | 0 | | | | |
| g. | Equipment Blanks | See RB | See RB | See RB | 0 | | | | |
| h. | VOA Trip Blanks | 0 | 0 | 0 | 0 | | | | |
| i. | Cooler Temperature Blanks | 1 per cooler | 1 per cooler | 1 per cooler | 1 per cooler | | | | |
| j. | Bottle Blanks | 0 | 0 | 0 | 0 | | | | |
| k. | Other: | | | | | | | | |
| l. | PES sent to Laboratory | NA | 6 | TBD | 0 | | | | |
| | **Laboratory QC:** | | | | | | | | |
| m. | Reagent Blank | 0 | 0 | 0 | 0 | | | | |
| n. | Duplicate | 0 | 0 | 0 | 0 | | | | |
| o. | Matrix Spike | 0 | 2 | 0 | 0 | | | | |
| p. | Matrix Spike Duplicate | 0 | 2 | 0 | | | | | |
| q. | Other: | | | | | | | | |

4. Site Information
Site Dimensions Approximately 11.26 acres
List all potentially contaminated matrices Surface and subsurface soil, sediment, ground water, and residential surface soil
Range of Depth to Groundwater greater than 5 feet
Soil Types: Surface Subsurface Other:
Sediment Types: Stream Pond Estuary Wetland Other: Expected Soil/Sediment Moisture Content: High Low

When multiple matrices will be sampled during a sampling event, complete Sections 5-10 for each matrix. Matrix Code[1] SO

5. Data Use (circle all that apply) Site Investigation/Assessment PRP Determination Removal Actions
Nature and Extent of Contamination Human and/or Ecological Risk Assessment Remediation Alternatives
Engineering Design Remedial Action
Post-Remedial Action (quarterly monitoring) Other:

Draft DQO Summary Form 11/96

6. Summarize DQOs: Collect surface and subsurface soil/source samples from the identified source area (capped former building footprint and excavated staged material) on the property for PCB Aroclors field screening and fixed based laboratory analysis in source areas on the Jard Company Inc property. A subset of samples will be submitted for fixed laboratory analysis with a smaller subset submitted for PCB Congener analysis.

Complete Table if applicable

| COCs | Action Levels | Analytical Method-Quantitation Limits |
|---|---|---|
| PCB Aroclors (Field Screening) | Above Background (Assumed to be ND) | 0.2 mg/Kg |
| PCB Aroclors (Fixed Lab) | Above Background (Assumed to be ND) | 33 ug/kg |
| PCB Congeners | Above Background (Assumed to be ND) | 20 to 100 ng/Kg |
| | | |
| | | |
| | | |
| | | |

7. Sampling Method (circle technique) Bailer Low flow pump (Region I method: Yes No) Peristaltic Pump
Positive Displacement Pump Faucet or Spigot Other:
Split Spoon Dredge Trowel (Other:) Direct sampling

Sampling Procedures (SOP name, No., Rev. #, and date)
List Background Sample Locations NA for source samples
Circle: Grab or Composite
"Hot spots" sampled: Yes No

8. Field Data (circle) ORP pH Specific Conductance Dissolved $O_2$ Temperature Turbidity
Other:

9. Analytical Methods and Parameters

| Method title/SOP name | Method/SOP Identification number | Revision Date | Target Parameters (VOA, SV, Pest/PCB, Metals, etc.) |
|---|---|---|---|
| PCB Aroclors (Field Screening) | EIA-FLDPCB2.SOP | | PCBs |
| PCB Aroclors | SOM01.2 or DAS Equivalent | | PCBs |
| PCB Congeners | CBC01.0 | | PCB Congeners |

10. Validation Criteria (circle one) 1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II, III or IV
2. Other Approved Validation Criteria:
Validation Tier (circle one) I (II) III Partial Tier III:
Company/Organization Performing Data Validation Weston Solutions, Inc./START III (Prime) or Subcontractor (circle one)

11. Company Name Weston Solutions, Inc. Contract Number EP-W-05-042
Contract Name (e.g. START, RACS, etc.) START III Work Assignment No. 20114-081-998-0850
Person Completing Form/Title G. Hornok/Lead Project Scientist Date of DQO Summary Form Completion 11 January 2013

When multiple matrices will be sampled during a sampling event, complete Sections 5-10 for each matrix. Matrix Code[1] GW

5. Data Use (circle all that apply) Site Investigation/Assessment PRP Determination Removal Actions
Nature and Extent of Contamination Human and/or Ecological Risk Assessment Remediation Alternatives
Engineering Design Remedial Action
Post-Remedial Action (quarterly monitoring) Other:

Draft DQO Summary Form 11/96

6. Summarize DQOs: Collect ground water samples from ground water monitoring wells previously installed on and off the property for PCB Aroclors fixed based laboratory analysis. A subset of samples will be submitted for PCB Congener analysis.

Complete Table if applicable

| COCs | Action Levels | Analytical Method-Quantitation Limits |
|---|---|---|
| PCB Aroclors (Fixed Lab) | Above Background (Assumed to be ND) | 1.0 µg/L |
| PCB Congeners | Above Background (Assumed to be ND) | 100 to 1,000 pg/L |
| | | |
| | | |
| | | |
| | | |
| | | |

7. Sampling Method (circle technique) Bailer Low flow pump (Region I method: Yes No) Peristaltic Pump
Positive Displacement Pump Faucet or Spigot Other:
Split Spoon Dredge Trowel Other:

Sampling Procedures (SOP name, No., Rev. #, and date)
List Background Sample Locations Ground Water monitoring wells TBD
Circle: Grab or Composite
"Hot spots" sampled: Yes No

8. Field Data (circle) ORP pH Specific Conductance Dissolved $O_2$ Temperature Turbidity
Other:

9. Analytical Methods and Parameters

| Method title/SOP name | Method/SOP Identification number | Revision Date | Target Parameters (VOA, SV, Pest/PCB, Metals, etc.) |
|---|---|---|---|
| PCB Aroclors | SOM01.2 or DAS Equivalent | | PCBs |
| PCB Congeners | CBC01.0 | | PCB Congeners |
| | | | |

10. Validation Criteria (circle one) 1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II, III or IV
2. Other Approved Validation Criteria:
Validation Tier (circle one) I II III Partial Tier III:
Company/Organization Performing Data Validation Weston Solutions, Inc./START III (Prime or Subcontractor (circle one)

11. Company Name Weston Solutions, Inc. Contract Number EP-W-05-042
Contract Name (e.g. START, RACS, etc.) START III Work Assignment No. 20114-081-998-0850
Person Completing Form/Title G. Hornok/Lead Project Scientist Date of DQO Summary Form Completion 11 January 2013

When multiple matrices will be sampled during a sampling event, complete Sections 5-10 for each matrix. Matrix Code[1] SD

5. Data Use (circle all that apply) Site Investigation/Assessment PRP Determination Removal Actions
Nature and Extent of Contamination Human and/or Ecological Risk Assessment Remediation Alternatives
Engineering Design Remedial Action
Post-Remedial Action (quarterly monitoring) Other:

Draft DQO Summary Form 11/96

6. Summarize DQOs: Collect sediment samples from a wetland located west of Park Street for PCB Aroclors field screening and fixed based laboratory analysis. A subset of samples will be submitted for fixed laboratory analysis with a smaller subset submitted for PCB Congener analysis.

Complete Table if applicable

| COCs | Action Levels | Analytical Method-Quantitation Limits |
|---|---|---|
| PCB Aroclors (Field Screening) | Above Background (Assumed to be ND) | 0.2 mg/Kg |
| PCB Aroclors (Fixed Lab) | Above Background (Assumed to be ND) | 33 ug/kg |
| PCB Congeners | Above Background (Assumed to be ND) | 20 to 100 ng/Kg |
| | | |
| | | |
| | | |
| | | |

7. Sampling Method (circle technique) Bailer Low flow pump (Region I method: Yes No) Peristaltic Pump
Positive Displacement Pump Faucet or Spigot Other:
Split Spoon Dredge Trowel (Other:) Direct sampling

Sampling Procedures (SOP name, No., Rev. #, and date)
Last Background Sample Locations Wetalnd area northeast of the Jard Company Inc property
Circle: Grab or Composite
"Hot spots" sampled: Yes No

8. Field Data (circle) ORP pH Specific Conductance Dissolved $O_2$ Temperature Turbidity
Other:

9. Analytical Methods and Parameters

| Method title/SOP name | Method/SOP Identification number | Revision Date | Target Parameters (VOA, SV, Pest/PCB, Metals, etc.) |
|---|---|---|---|
| PCB Aroclors (Field Screening) | SOM01.2 | | PCBs |
| PCB Aroclors | SOM01.2 or DAS Equivalent | | PCBs |
| Total Metals (including Hg) | CBC01.0 | | PCB Congeners |

10. Validation Criteria (circle one) 1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II, III or IV
2. Other Approved Validation Criteria:
Validation Tier (circle one) I (II) III Partial Tier III:
Company/Organization Performing Data Validation Weston Solutions, Inc./START III (Prime) or Subcontractor (circle one)

11. Company Name Weston Solutions, Inc. Contract Number EP-W-05-042
Contract Name (e.g. START, RACS, etc.) START III Work Assignment No. 20114-081-998-0850
Person Completing Form/Title G. Hornok/Lead Project Scientist Date of DQO Summary Form Completion 11 January 2013

When multiple matrices will be sampled during a sampling event, complete Sections 5-10 for each matrix. Matrix Code[1] SS

5. Data Use (circle all that apply) Site Investigation/Assessment PRP Determination Removal Actions
Nature and Extent of Contamination Human and/or Ecological Risk Assessment Remediation Alternatives
Engineering Design Remedial Action
Post-Remedial Action (quarterly monitoring) Other:

Draft DQO Summary Form 11/96

6. Summarize DQOs: Collect surface soil samples from residential properties downgradient of the Jard Company Inc property and within 200 feet of the residences for PCB Aroclors field screening and fixed based laboratory analysis in source areas on the Jard Company Inc property. A subset of samples will be submitted for fixed laboratory analysis with a smaller subset submitted for PCB Congener analysis.

Complete Table if applicable

| COCs | Action Levels | Analytical Method-Quantitation Limits |
|---|---|---|
| PCB Aroclors (Field Screening) | Above Background (Assumed to be ND) | 0.2 mg/Kg |
| PCB Aroclors (Fixed Lab) | Above Background (Assumed to be ND) | 33 ug/kg |
| PCB Congeners | Above Background (Assumed to be ND) | 20 to 100 ng/Kg |
| | | |
| | | |
| | | |
| | | |

7. Sampling Method (circle technique) Bailer Low flow pump (Region I method: Yes No) Peristaltic Pump
Positive Displacement Pump Faucet or Spigot Other:
Split Spoon Dredge Trowel (Other:) Direct sampling

Sampling Procedures (SOP name, No., Rev. #, and date)
List Background Sample Locations Residential properties located north of the Jard Company Inc property
Circle: Grab or Composite
"Hot spots" sampled: (Yes) No

8. Field Data (circle) ORP pH Specific Conductance Dissolved $O_2$ Temperature Turbidity
Other:

9. Analytical Methods and Parameters

| Method title/SOP name | Method/SOP Identification number | Revision Date | Target Parameters (VOA, SV, Pest/PCB, Metals, etc.) |
|---|---|---|---|
| PCB Aroclors (Field Screening) | SOM01.2 | | PCBs |
| PCB Aroclors | SOM01.2 or DAS Equivalent | | PCBs |
| Total Metals (including Hg) | CBC01.0 | | PCB Congeners |

10. Validation Criteria (circle one) 1. Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part II, III or IV
2. Other Approved Validation Criteria:
Validation Tier (circle one) I (II) III Partial Tier III:
Company/Organization Performing Data Validation Weston Solutions, Inc./START III (Prime) or Subcontractor (circle one)

11. Company Name Weston Solutions, Inc. Contract Number EP-W-05-042
Contract Name (e.g. START, RACS, etc.) START III Work Assignment No. 20114-081-998-0850
Person Completing Form/Title G. Hornok/Lead Project Scientist Date of DQO Summary Form Completion 11 January 2013

Matrix Codes[1] - Refer to Attachment B, Part I
Parameter Codes[2] - Refer to Attachment B, Part II

Preservation Codes[3]

| | | | |
|---|---|---|---|
| 1. | HCl to pH ≤ 2 | 7. | $K_2Cr_2O_7$ |
| 2. | $HNO_3$ | 8. | Freeze |
| 3. | $NaHSO_4$ | 9. | Room Temperature (avoid excessive heat) |
| 4. | $H_2SO_4$ | 10. | Other (Specify) |
| 5. | Cool @ 4C (± 2) | N. | Not preserved |
| 6. | NaOH | | |

* - To supplement Matrix Codes and/or Parameter Codes contact the QA Unit

Attachment C

Original Analytical Results (Form I's)
Case No. 43395; SDG No. A4B16

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B16

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: E1904-01

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: PB004803.D

% Moisture: Decanted: (Y/N) Date Received: 04/18/2013

Extraction: (Type) SEPF Date Extracted: 04/19/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 1.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |
| 37324-23-5 | Aroclor-1262 | 1.0 | U |
| 11100-14-4 | Aroclor-1268 | 1.0 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B54

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: E1904-02

Sample wt/vol: 1000.0 (g/mL) mL Lab File ID: PB004804.D

% Moisture: Decanted: (Y/N) Date Received: 04/18/2013

Extraction: (Type) SEPF Date Extracted: 04/19/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 1.0 | U |
| 11104-28-2 | Aroclor-1221 | 1.0 | U |
| 11141-16-5 | Aroclor-1232 | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | 1.0 | U |
| 12672-29-6 | Aroclor-1248 | 1.0 | U |
| 11097-69-1 | Aroclor-1254 | 1.0 | U |
| 11096-82-5 | Aroclor-1260 | 1.0 | U |
| 37324-23-5 | Aroclor-1262 | 1.0 | U |
| 11100-14-4 | Aroclor-1268 | 1.0 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B81

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-03

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004776.D

% Moisture: 31 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.54 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q. |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 48 | U |
| 11104-28-2 | Aroclor-1221 | 48 | U |
| 11141-16-5 | Aroclor-1232 | 48 | U |
| 53469-21-9 | Aroclor-1242 | 63 | J |
| 12672-29-6 | Aroclor-1248 | 48 | U |
| 11097-69-1 | Aroclor-1254 | 48 | U |
| 11096-82-5 | Aroclor-1260 | 48 | U |
| 37324-23-5 | Aroclor-1262 | 48 | U |
| 11100-14-4 | Aroclor-1268 | 48 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B82

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-04

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004777.D

% Moisture: 30 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.24 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 47 | U |
| 11104-28-2 | Aroclor-1221 | 47 | U |
| 11141-16-5 | Aroclor-1232 | 47 | U |
| 53469-21-9 | Aroclor-1242 | 47 | U |
| 12672-29-6 | Aroclor-1248 | 47 | U |
| 11097-69-1 | Aroclor-1254 | 47 | U |
| 11096-82-5 | Aroclor-1260 | 47 | U |
| 37324-23-5 | Aroclor-1262 | 47 | U |
| 11100-14-4 | Aroclor-1268 | 47 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B83

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-05

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004778.D

% Moisture: 23 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.39 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 43 | U |
| 11104-28-2 | Aroclor-1221 | 43 | U |
| 11141-16-5 | Aroclor-1232 | 43 | U |
| 53469-21-9 | Aroclor-1242 | 43 | U |
| 12672-29-6 | Aroclor-1248 | 43 | U |
| 11097-69-1 | Aroclor-1254 | 43 | U |
| 11096-82-5 | Aroclor-1260 | 43 | U |
| 37324-23-5 | Aroclor-1262 | 43 | U |
| 11100-14-4 | Aroclor-1268 | 43 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B84

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-06

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004779.D

% Moisture: 21 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.90 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 41 | U |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 41 | U |
| 11096-82-5 | Aroclor-1260 | 41 | U |
| 37324-23-5 | Aroclor-1262 | 41 | U |
| 11100-14-4 | Aroclor-1268 | 41 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B85

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-07

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004780.D

% Moisture: 30 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.33 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 47 | U |
| 11104-28-2 | Aroclor-1221 | 47 | U |
| 11141-16-5 | Aroclor-1232 | 47 | U |
| 53469-21-9 | Aroclor-1242 | 60 | J |
| 12672-29-6 | Aroclor-1248 | 47 | U |
| 11097-69-1 | Aroclor-1254 | 47 | U |
| 11096-82-5 | Aroclor-1260 | 47 | U |
| 37324-23-5 | Aroclor-1262 | 47 | U |
| 11100-14-4 | Aroclor-1268 | 47 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B86

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-08

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004781.D

% Moisture: 26 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.97 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 44 | U |
| 11104-28-2 | Aroclor-1221 | 44 | U |
| 11141-16-5 | Aroclor-1232 | 44 | U |
| 53469-21-9 | Aroclor-1242 | 44 | U |
| 12672-29-6 | Aroclor-1248 | 44 | U |
| 11097-69-1 | Aroclor-1254 | 44 | U |
| 11096-82-5 | Aroclor-1260 | 44 | U |
| 37324-23-5 | Aroclor-1262 | 44 | U |
| 11100-14-4 | Aroclor-1268 | 44 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B87

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-09

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004782.D

% Moisture: 19 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.75 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 41 | U |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 41 | U |
| 11096-82-5 | Aroclor-1260 | 41 | U |
| 37324-23-5 | Aroclor-1262 | 41 | U |
| 11100-14-4 | Aroclor-1268 | 41 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B88

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-12

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004785.D

% Moisture: 19 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.09 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 39 | J |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 41 | U |
| 11096-82-5 | Aroclor-1260 | 41 | U |
| 37324-23-5 | Aroclor-1262 | 41 | U |
| 11100-14-4 | Aroclor-1268 | 41 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B89

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-13

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004786.D

% Moisture: 18 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.00 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 40 | U |
| 11104-28-2 | Aroclor-1221 | 40 | U |
| 11141-16-5 | Aroclor-1232 | 40 | U |
| 53469-21-9 | Aroclor-1242 | 40 | U |
| 12672-29-6 | Aroclor-1248 | 40 | U |
| 11097-69-1 | Aroclor-1254 | 40 | U |
| 11096-82-5 | Aroclor-1260 | 40 | U |
| 37324-23-5 | Aroclor-1262 | 40 | U |
| 11100-14-4 | Aroclor-1268 | 40 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B90

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-14

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004787.D

% Moisture: 19 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.99 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 41 | U |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 41 | U |
| 11096-82-5 | Aroclor-1260 | 41 | U |
| 37324-23-5 | Aroclor-1262 | 41 | U |
| 11100-14-4 | Aroclor-1268 | 41 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B91

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-15

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004788.D

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.58 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 42 | U |
| 11104-28-2 | Aroclor-1221 | 42 | U |
| 11141-16-5 | Aroclor-1232 | 42 | U |
| 53469-21-9 | Aroclor-1242 | 42 | U |
| 12672-29-6 | Aroclor-1248 | 42 | U |
| 11097-69-1 | Aroclor-1254 | 42 | U |
| 11096-82-5 | Aroclor-1260 | 42 | U |
| 37324-23-5 | Aroclor-1262 | 42 | U |
| 11100-14-4 | Aroclor-1268 | 42 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B92

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-16

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004794.D

% Moisture: 21 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.61 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 42 | U |
| 11104-28-2 | Aroclor-1221 | 42 | U |
| 11141-16-5 | Aroclor-1232 | 42 | U |
| 53469-21-9 | Aroclor-1242 | 42 | U |
| 12672-29-6 | Aroclor-1248 | 42 | U |
| 11097-69-1 | Aroclor-1254 | 42 | U |
| 11096-82-5 | Aroclor-1260 | 42 | U |
| 37324-23-5 | Aroclor-1262 | 42 | U |
| 11100-14-4 | Aroclor-1268 | 42 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B93

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-17

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004795.D

% Moisture: 20 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.07 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 41 | U |
| 11104-28-2 | Aroclor-1221 | 41 | U |
| 11141-16-5 | Aroclor-1232 | 41 | U |
| 53469-21-9 | Aroclor-1242 | 41 | U |
| 12672-29-6 | Aroclor-1248 | 41 | U |
| 11097-69-1 | Aroclor-1254 | 41 | U |
| 11096-82-5 | Aroclor-1260 | 41 | U |
| 37324-23-5 | Aroclor-1262 | 41 | U |
| 11100-14-4 | Aroclor-1268 | 41 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B94

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-18

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004796.D

% Moisture: 37 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.82 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 52 | U |
| 11104-28-2 | Aroclor-1221 | 52 | U |
| 11141-16-5 | Aroclor-1232 | 52 | U |
| 53469-21-9 | Aroclor-1242 | 52 | U |
| 12672-29-6 | Aroclor-1248 | 52 | U |
| 11097-69-1 | Aroclor-1254 | 52 | U |
| 11096-82-5 | Aroclor-1260 | 52 | U |
| 37324-23-5 | Aroclor-1262 | 52 | U |
| 11100-14-4 | Aroclor-1268 | 52 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B95

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-19

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004797.D

% Moisture: 47 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.04 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 62 | U |
| 11104-28-2 | Aroclor-1221 | 62 | U |
| 11141-16-5 | Aroclor-1232 | 62 | U |
| 53469-21-9 | Aroclor-1242 | 62 | U |
| 12672-29-6 | Aroclor-1248 | 62 | U |
| 11097-69-1 | Aroclor-1254 | 62 | U |
| 11096-82-5 | Aroclor-1260 | 62 | U |
| 37324-23-5 | Aroclor-1262 | 62 | U |
| 11100-14-4 | Aroclor-1268 | 62 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B96

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-20

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004798.D

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.43 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 42 | U |
| 11104-28-2 | Aroclor-1221 | 42 | U |
| 11141-16-5 | Aroclor-1232 | 42 | U |
| 53469-21-9 | Aroclor-1242 | 42 | U |
| 12672-29-6 | Aroclor-1248 | 42 | U |
| 11097-69-1 | Aroclor-1254 | 42 | U |
| 11096-82-5 | Aroclor-1260 | 42 | U |
| 37324-23-5 | Aroclor-1262 | 42 | U |
| 11100-14-4 | Aroclor-1268 | 42 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B97

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-21

Sample wt/vol: 30.0 (g/mL) g Lab File ID: PB004799.D

% Moisture: 28 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.60 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 46 | U |
| 11104-28-2 | Aroclor-1221 | 46 | U |
| 11141-16-5 | Aroclor-1232 | 46 | U |
| 53469-21-9 | Aroclor-1242 | 46 | U |
| 12672-29-6 | Aroclor-1248 | 46 | U |
| 11097-69-1 | Aroclor-1254 | 46 | U |
| 11096-82-5 | Aroclor-1260 | 46 | U |
| 37324-23-5 | Aroclor-1262 | 46 | U |
| 11100-14-4 | Aroclor-1268 | 46 | U |

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

A4B98

Lab Name: Chemtech Contract: EPW11030

Lab Code: CHEM Case No.: 43395 Mod. Ref No.: SDG No.: A4B16

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: E1904-22

Sample wt/vol: 30.1 (g/mL) g Lab File ID: PB004800.D

% Moisture: 13 Decanted: (Y/N) N Date Received: 04/19/2013

Extraction: (Type) SOXH Date Extracted: 04/22/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/23/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.0 Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.29 Sulfur Cleanup: (Y/N) N

Acid Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg | Q |
|---|---|---|---|
| 12674-11-2 | Aroclor-1016 | 38 | U |
| 11104-28-2 | Aroclor-1221 | 38 | U |
| 11141-16-5 | Aroclor-1232 | 38 | U |
| 53469-21-9 | Aroclor-1242 | 38 | U |
| 12672-29-6 | Aroclor-1248 | 38 | U |
| 11097-69-1 | Aroclor-1254 | 38 | U |
| 11096-82-5 | Aroclor-1260 | 38 | U |
| 37324-23-5 | Aroclor-1262 | 38 | U |
| 11100-14-4 | Aroclor-1268 | 38 | U |

Attachment D

USEPA Contract Laboratory Program Statement of Work for Organic Analysis,
Multi-Media Multi-Concentration, SOMO1.2 (Excerpt)
and
Modifications Updating SOM01.1 to SOM01.2, October 5, 2006, Updated 02-12-2007,
Amended 04-11-2007 (Excerpt)

## 4.0 AROCLORS TARGET COMPOUND LIST AND CONTRACT REQUIRED QUANTITATION LIMITS[1]

| Aroclors | CAS Number | Quantitation Limits Water ug/L | Quantitation Limits Soil ug/kg |
|---|---|---|---|
| 141. Aroclor-1016 | 12674-11-2 | 1.0 | 33 |
| 142. Aroclor-1221 | 11104-28-2 | 1.0 | 33 |
| 143. Aroclor-1232 | 11141-16-5 | 1.0 | 33 |
| 144. Aroclor-1242 | 53469-21-9 | 1.0 | 33 |
| 145. Aroclor-1248 | 12672-29-6 | 1.0 | 33 |
| 146. Aroclor-1254 | 11097-69-1 | 1.0 | 33 |
| 147. Aroclor-1260 | 11096-82-5 | 1.0 | 33 |
| 148. Aroclor-1262 | 37324-23-5 | 1.0 | 33 |
| 149. Aroclor-1268 | 11100-14-4 | 1.0 | 33 |

[1]There is no differentiation between the preparation of low and medium soil samples in this method for the analysis of Aroclors.

| EXHIBIT D – AROCLORS | |
|---|---|
| **EXHIBIT/SECTION(S)** | **MODIFICATION (S)** |
| *Aro-Item 1*<br>Exhibit D - Aroclor: Section 7.2.3.4.1 | The following Section:<br><br>"Prepare five-point initial calibration standard solutions containing a mixture of Aroclors 1016 and 1260 at the following suggested levels: 100; 200; 400; 800; and 1600 ng/mL and surrogates at 5.0, 10, 20, 40 and 80 ng/mL for tetrachloro-m-xylene and 10, 20, 40, 80 and 160 ng/mL for decachlorobiphenyl. Also, prepare a single-point initial calibration standard solution containing Aroclors 1221, 1232, 1242, 1248, 1254, 1262, and 1268 at 400 ng/mL and surrogates at 20 ng/mL for tetrachloro-m-xylene and 40 ng/mL for decachlorobiphenyl. The solutions must be prepared every 6 months, or sooner if the solutions have degraded or concentrated."<br><br>Is updated to:<br>"Prepare five-point initial calibration standard solutions containing a mixture of Aroclors 1016 and 1260 at the following suggested levels: 100; 200; 400; 800; and 1600 ng/mL and surrogates at 5.0, 10, 20, 40 and 80 ng/mL for tetrachloro-m-xylene and 10, 20, 40, 80 and 160 ng/mL for decachlorobiphenyl. ***In addition, prepare a single-point initial calibration standard solution containing Aroclors 1221 at 400 ng/mL including surrogates, tetrachloro-m-xylene at 20 ng/mL and decachlorobiphenyl at 40 ng/mL. Also, prepare a single point calibration initial calibration standard of Aroclor 1232, 1242, 1248, 1254, 1262, and 1268 as instructed for Aroclor 1221.*** **Refer to Section 7.2.3.4.3 for five-point calibration standards of the other Aroclors.** The solutions must be prepared every 6 months, or sooner if the solutions have degraded or concentrated." |
| *Aro-Item 2*<br>Exhibit D - Aroclor: Section 7.2.3.4.2 | The following Section:<br><br>"Prepare a single-point calibration verification standard solution containing Aroclor 1260 and Aroclor 1016 at 400 ng/mL and surrogates at 20 ng/mL for tetrachloro-m-xylene and 40 ng/mL for decachlorobiphenyl. The solution must be prepared every 6 months, or sooner if the solution has degraded or concentrated."<br><br>Is updated to:<br>"Prepare a single-point calibration verification standard solution containing Aroclor 1260 and Aroclor 1016 at 400 ng/mL and surrogates, ***tetrachloro-m-xylene at 20 ng/mL and decachlorobiphenyl 40 ng/mL.*** **Additional *individual* calibration verification standard *solution(s)* containing any other Aroclor may be prepared when necessary at 400 ng/mL, *including surrogates, tetrachloro-m-xylene at 20 ng/mL and decachlorobiphenyl at 40 ng/mL.*** The solution must be prepared every 6 months, or sooner if the solution has degraded or concentrated." |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 3*<br>Exhibit D - Aroclor: Section 9.2.1 | The following Section:<br><br>"Summary of Initial Calibration<br><br>Prior to sample analysis (including LCSs and MS/MSDs) and required blanks (method/sulfur cleanup/instrument), each GC/ECD system must be initially calibrated to determine instrument sensitivity and the linearity of Aroclor response. An initial five-point calibration is performed using Aroclors 1016 and 1260 to demonstrate the linearity of the detector response. The other seven Aroclors are calibrated at a single mid-point for pattern recognition. The standards for these seven Aroclors should be analyzed before the analysis of any samples, and may be analyzed before or after the analysis of the five levels of the Aroclor 1016/1260 standards.<br><br>is updated to:<br>Summary of Initial Calibration<br><br>Prior to sample analysis (including LCSs and MS/MSDs) and required blanks (method/sulfur cleanup/instrument), each GC/ECD system must be initially calibrated to determine instrument sensitivity and the linearity of Aroclor response. An initial five-point calibration is performed using Aroclors 1016 and 1260 to demonstrate the linearity of the detector response. The other seven Aroclors can be calibrated at a single mid-point **at a minimum**, for pattern recognition. The standards for these seven Aroclors should be analyzed before the analysis of any samples, and may be analyzed before or after the analysis of the five levels of the Aroclor 1016/1260 standards.<br>**Note: All Aroclor target compounds may have five-point calibrations performed initially, prior to sample analyses. Alternately, as long as a valid five-point calibration of Aroclor 1016/1260 is present, five-point calibrations for any of the remaining Aroclor target compounds may be performed, prior to sample analyses.** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 4*<br>Exhibit D - Aroclor: Section 9.2.2 | The following Section:<br>Each GC/ECD system must be initially calibrated upon award of the contract, whenever major instrument maintenance or modification is performed (e.g., column replacement or repair, cleaning or replacement of the ECD, etc.), or if the calibration verification technical acceptance criteria have not been met. Also, for any sample in which an Aroclor, other than Aroclor 1016 or Aroclor 1260 is detected, results for the specific Aroclor(s) may only be reported if the Aroclor(s) have been calibrated using multipoint standards (five-point). If time remains in the 12-hour period after a valid five-point initial calibration for a detected Aroclor(s) has been performed, then samples containing the Aroclor(s) may be analyzed. If the previously-analyzed five-point initial calibration containing the Aroclor(s) detected in the sample(s) is not in the same 12-hour sequence, then the sample(s) must be analyzed after a Continuing Calibration Verification (CCV) analysis containing the Aroclor(s) detected in the sample(s) that meets the criteria for CCVs in Section 9.3.<br><br>is updated to:<br>Each GC/ECD system must be initially calibrated upon award of the contract, whenever major instrument maintenance or modification is performed (e.g., column replacement or repair, cleaning or replacement of the ECD, etc.), or if the calibration verification technical acceptance criteria have not been met. Also, for any sample, in which an Aroclor (other than Aroclor 1016 or Aroclor 1260) is detected, **for which a valid five point calibration curve is not available, results for these specific Aroclors must be reported as an estimated concentration with the appropriate compound qualifier. Subsequently, the sample must be re-analyzed following a valid five point calibration of the specific Aroclor. All sample analysis, must be preceded by an opening CCV with an Aroclor 1016/1260 CS3 standard, at a minimum. Additional Aroclor opening CCV standards may be analyzed at the laboratory's discretion. The closing CCV must include Aroclor 1016/1260 CS3 and all detected Aroclors in the sample. When an Aroclor, other than Aroclor 1016/1260, is detected in a sample, the closing CCV CS3 standard of this detected Aroclor standard must meet opening CCV technical acceptance criteria in Section 9.3.5, if the sample was not preceded by the Aroclor included as a CS3 standard in the opening CCV."** |
| *Aro-Item 5*<br>Exhibit D – Aroclor: Section 9.2.3.3 | The following Section:<br>"If Aroclors other than Aroclor 1016/1260 are detected in an analysis, a separate five point calibration must be prepared (Section 7.2.3.4.3) and run for that particular Aroclor."<br><br>is updated to:<br>"If Aroclors other than Aroclor 1016/1260 are detected in a sample analysis, **following a single-point calibration for that particular Aroclor,** a separate five-point calibration must be prepared (Section 7.2.3.4.3) and run for that particular Aroclor, **followed by a re-analysis of the sample."** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 6*<br>Exhibit D – Aroclor: Section 9.2.3.5 | Analyze the initial calibration sequence as given below.<br><br>Initial Calibration Sequence<br>1. Aroclor 1221 CS3 (400 ng/mL)<br>2. Aroclor 1232 CS3 (400 ng/mL)<br>3. Aroclor 1242 CS3 (400 ng/mL)<br>4. Aroclor 1248 CS3 (400 ng/mL)<br>5. Aroclor 1254 CS3 (400 ng/mL)<br>6. Aroclor 1262 CS3 (400 ng/mL)<br>7. Aroclor 1268 CS3 (400 ng/mL)<br>8. Aroclor 1016/1260 CS1 (100 ng/mL)<br>9. Aroclor 1016/1260 CS2 (200 ng/mL)<br>10. Aroclor 1016/1260 CS3 (400 ng/mL)<br>11. Aroclor 1016/1260 CS4 (800 ng/mL)<br>12. Aroclor 1016/1260 CS5 (1600 ng/mL)<br>13. Instrument blank<br><br>**Note:** The single-point Aroclor standards may be analyzed after the analysis of the five levels of the Aroclor 1016/1260 standards. The steps pertaining to the instrument blank are used as part of the calibration verification as well.<br><br>is updated to:<br>**"Initial Calibration may be performed by any of the following sequence Options given below:**<br><br>Initial Calibration Sequence – **Option 1**<br>1. Aroclor 1221 CS3 (400 ng/mL)<br>2. Aroclor 1232 CS3 (400 ng/mL)<br>3. Aroclor 1242 CS3 (400 ng/mL)<br>4. Aroclor 1248 CS3 (400 ng/mL)<br>5. Aroclor 1254 CS3 (400 ng/mL)<br>6. Aroclor 1262 CS3 (400 ng/mL)<br>7. Aroclor 1268 CS3 (400 ng/mL)<br>8. Aroclor 1016/1260 CS1 (100 ng/mL)<br>9. Aroclor 1016/1260 CS2 (200 ng/mL)<br>10. Aroclor 1016/1260 CS3 (400 ng/mL)<br>11. Aroclor 1016/1260 CS4 (800 ng/mL)<br>12. Aroclor 1016/1260 CS5 (1600 ng/mL)<br><br>**Note: The single-point Aroclor standards may be analyzed after the analysis of the five levels of the Aroclor 1016/1260 standards in Option 1 above.**<br><br>**OR** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 6*<br>Exhibit D – Aroclor: Section 9.2.3.5<br>*(Cont.)* | **Initial Calibration Sequence - Option 2**<br>**5-points of Aroclor 1016/1260(100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1221 (100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1232(100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1242(100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1248(100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1254(100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1262(100ng/mL to 1600ng/mL)**<br>**5-points of Aroclor 1268(100ng/mL to 1600ng/mL)**<br><br>**OR**<br><br>**Initial Calibration Sequence - Option 3**<br>**5-points of Aroclor 1016/1260(100ng/mL to 1600ng/mL)**<br>**5-points or single point Aroclor 1221 (100ng/mL - 1600ng/mL or 400ng/mL)**<br>**5-points or single point Aroclor 1232 (100ng/mL - 1600ng/mL or 400ng/mL)**<br>**5-points or single point Aroclor 1242 (100ng/mL - 1600ng/mL or 400ng/mL)**<br>**5-points or single point Aroclor 1248 (100ng/mL - 1600ng/mL or 400ng/mL)**<br>**5-points or single point Aroclor 1254 (100ng/mL - 1600ng/mL or 400ng/mL)**<br>**5-points or single point Aroclor 1262 (100ng/mL- 1600ng/mL or 400ng/mL)**<br>**5-points or single point Aroclor 1268 (100ng/mL - 1600ng/mL or 400ng/mL)**<br><br>**Note: Option 2 and 3 Initial Calibration above may be performed in any Aroclor sequence as long as a valid five-point calibration of Aroclor 1016/1260 is present. Refer to Section 7.2.3.4 for initial calibration standard concentrations.** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 7*<br>Exhibit D – Aroclor: Section 9.2.4.2 | The following Section:<br>"For Aroclors 1016 and 1260, an RT is measured for a minimum of 3 peaks in each of the five calibration standards and the mean RT ($\overline{RT}$) is calculated for each of the peaks as the average of the five values obtained from the five calibration standards. For Aroclors 1221, 1232, 1242, 1248, 1254, 1262, and 1268 an RT is measured for each of the peaks for a single-point calibration standard. If a valid five-point calibration is present for a specific Aroclor then an RT is measured for each of the peaks in each of the five calibration standards and the $\overline{RT}$ is calculated as the average of the five values for each of the peaks obtained from the five calibration standards. An RT is measured for the surrogates in each of the five calibration standards and the $\overline{RT}$ is calculated as the average of the five values. Calculate the $\overline{RT}$ using Equation 1:<br><br>is updated to:<br>"For Aroclors 1016 and 1260, an RT is measured for a minimum of 3 peaks in each of the five calibration standards and the mean RT ($\overline{RT}$) is calculated for each of the peaks as the average of the five values obtained from the five calibration standards. For Aroclors 1221, 1232, 1242, 1248, 1254, 1262, and 1268 an RT is measured for **a minimum of three** peaks for a single-point calibration standard. If a valid five-point calibration is present for a specific Aroclor then an RT is measured for **a minimum of three** peaks in each of the five calibration standards and the $\overline{RT}$ is calculated as the average of the five values for each of the peaks obtained from the five calibration standards. An RT is measured for the surrogates in each of the five calibration standards of **Aroclor 1016/1260, or from Aroclor 1016 if analyzed as a separate mixture. The surrogate $\overline{RT}$ is** calculated as the average of the five values. Calculate the $\overline{RT}$ using Equation 1:" |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 8*<br>Exhibit D – Aroclor: Section 9.2.4.4 | The following Section:<br>"The linearity of the instrument is determined by calculating a Percent Relative Standard Deviation (%RSD) of the Calibration Factors (CFs). Either peak area or peak height may be used to calculate CFs used in the %RSD equation.<br><br>Five sets of CFs will be generated for the Aroclor 1016/1260 mixture, each set consisting of the CFs for each of the five peaks chosen for this mixture. The single standard for each of the other Aroclors will generate at least three CFs, one for each selected peak, unless a valid five-point calibration is present for a specific Aroclor, in which case five sets of CFs will be generated for the specific Aroclor.<br><br>Calculate CFs, the Mean CF ($\overline{CF}$), and the %RSD of the CFs for each peak in a selected set of a minimum of 3 major peaks for each Aroclor using Equations 2, 3, and 4."<br><br>Is updated to:<br>"The linearity of the instrument is determined by calculating a Percent Relative Standard Deviation (%RSD) of the Calibration Factors (CFs). Either peak area or peak height may be used to calculate CFs used in the %RSD equation.<br><br>Five sets of CFs will be generated for the Aroclor 1016/1260 mixture, each set consisting of the CFs for each of the peaks **(minimum of three)** chosen for this mixture. The single standard for each of the other Aroclors will generate at least three CFs, one for each selected peak, unless a valid five-point calibration is present for a specific Aroclor, in which case five sets of CFs will be generated for the specific Aroclor. **Calibration Factors (CF) for the surrogates must be generated for each of the five calibration standards of Aroclor 1016/1260, or from Aroclor 1016 if analyzed as a separate mixture. The $\overline{CF}$ of each surrogate compound is calculated as the average of the five values.**<br><br>Calculate CFs, the Mean CF ($\overline{CF}$), and the %RSD of the CFs for each peak in a selected set of a minimum of 3 major peaks for each Aroclor using Equations 2, 3, and 4." |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 9*<br>Exhibit D – Aroclor: Section 9.3.1 | The following Section:<br>"Summary of Continuing Calibration Verification (CCV)<br><br>The analyses of instrument blanks and the required Aroclor CS3 Standard Mixtures (see Section 9.3.2) constitute the calibration verification. Sample (including LCS and MS/MSD) and required blank (method/sulfur cleanup) data are not acceptable unless bracketed by acceptable analyses of instrument blanks and the Aroclor CS3 Standard Mixtures. In cases where a valid five-point initial calibration for the detected Aroclors is required, that initial calibration may be substituted for the opening CCV."<br><br>Is updated to:<br>"Summary of Continuing Calibration Verification (CCV)<br><br>**The analyses of instrument blanks and the required Aroclor CS3 Standard Mixtures (see Section 9.3.2) constitute the calibration verification. Sample (including LCS and MS/MSD) and required blank (method/sulfur cleanup) data are not acceptable unless bracketed by acceptable analyses of instrument blanks and the Aroclor CS3 Standard Mixtures."**<br>Note the last sentence in the section is deleted:<br>**"In cases where a valid five-point initial calibration for the detected Aroclors is required, that initial calibration may be substituted for the opening CCV."** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 10*<br>Exhibit D – Aroclor: Section 9.3.2.1 | The following section:<br>An instrument blank and Aroclor 1016/1260 CS3 Standard Mixture must bracket one end of a 12-hour period (opening CCV) during which sample and required blank data are collected, and a second instrument blank and the Aroclor 1016/1260 CS3 Standard Mixture must bracket the other end of the 12-hour period (closing CCV). If during any 12-hour period, an Aroclor other than 1016 or 1260 is detected and the 12-hour time period for the five-point initial calibration of the detected Aroclor(s) has elapsed, then an instrument blank and a CS3 standard of the detected Aroclor(s) must bracket both ends of the 12-hour period. If the opening CCV does not meet all technical acceptance criteria, then a new valid five-point initial calibration for the detected Aroclors must be performed before samples containing the detected Aroclors may be analyzed.<br><br>is updated to:<br>"An instrument blank and Aroclor 1016/1260 CS3 Standard Mixture must bracket one end of a 12-hour period (opening CCV) during which sample and required blank data are collected, **a second instrument blank, Aroclor 1016/1260 CS3 and CS3 Standard Mixture (s) of any other detected Aroclor (s) must bracket the other end of a 12-hour period (closing CCV). Each opening CCV must include an instrument blank and Aroclor 1016/1260 CS3 standard, additional Aroclor CS3 standards may be performed at the laboratory's discretion. If a valid five-point calibration is available for Aroclor (s) other than 1016/1260, an opening CCV with an instrument blank and Aroclor 1016/1260 CS3 is sufficient, however, the closing CCV must *include* all Aroclors detected and meet opening CCV technical acceptance criteria in Section 9.3.5.3.** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 11*<br>Exhibit D – Aroclor: Section 9.3.2.2 | For the 12-hour period immediately following the initial calibration sequence, the instrument blank is the last step in the initial calibration sequence and brackets the front end of that 12-hour period. The injection of the instrument blank starts the beginning of the 12-hour period (Section 10.3.2.1.1), followed by the injection of the Aroclor 1016/1260 CS3 Standard. Samples (including LCSs and MS/MSDs) and required blanks (method/sulfur cleanup) may be injected for 12 hours from the injection of the instrument blank. The first injections immediately after that 12-hour period must be an instrument blank and the Aroclor 1016/1260 CS3 Standard Mixture. The instrument blank must be analyzed first, before the standard.<br><br>Is updated to:<br>"The injection of **an** instrument blank starts the beginning of the 12-hour period (Section 10.3.2.1.1), followed by the injection of Aroclor 1016/1260 CS3 Standard **and any additional CS3 Standard Mixture(s) as determined by the laboratory**. Samples (including LCSs and MS/MSDs) and required blanks (method/sulfur cleanup) may be injected for 12 hours from the injection of the instrument blank. The first injections immediately after **the previous** 12-hour period must be an instrument blank, Aroclor 1016/1260 CS3 Standard **and CS3 Standard Mixture(s) of any other detected Aroclor. A closing CCV must bracket the end of a 12-hour sequence.** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 12*<br>Exhibit D – Aroclor: Section 9.3.2.3 | The following Section:<br>"The analyses of the instrument blank and CS3 Standard Mixture (closing CCV) immediately following one 12-hour period may be used to begin the subsequent 12-hour period as an opening CCV, provided that they meet the technical acceptance criteria in Section 9.3.5. In that instance, the subsequent 12-hour period must be bracketed by the acceptable analyses of an instrument blank and a CS3 Standard Mixture (closing CCV), in that order. Those two analyses may in turn be used to bracket the front end of yet another 12-hour period (opening CCV). This progression may continue every 12 hours until such time as any of the instrument blanks or the CS3 Standard Mixture fails to meet the technical acceptance criteria in Section 9.3.4, or an Aroclor has been detected in a sample for which the corresponding CS3 standard was not performed for the opening CCV. The 12-hour time period begins with the injection of the instrument blank."<br><br>is updated to:<br>"The analyses of the instrument blank and CS3 Standard Mixture*(s)* (closing CCV) immediately following one 12-hour period may be used to begin the subsequent 12-hour period as an opening CCV, provided that they meet the technical acceptance criteria in Section 9.3.5. In that instance, the subsequent 12-hour period must be bracketed by the acceptable analyses of an instrument blank and a CS3 Standard Mixture*(s)* (closing CCV), in that order. Those two analyses may in turn be used to bracket the front end of yet another 12-hour period (opening CCV). This progression may continue every 12 hours until such time as any of the instrument blanks or the **required** CS3 Standard Mixture (s) fails to meet the technical acceptance criteria in **Section 9.3.5.** |
| *Aro-Item 13*<br>Exhibit D – Aroclor: Section 9.3.2.4 | The following section is deleted:<br>**"If more than 12 hours have elapsed since the injection of the instrument blank that bracketed a previous 12-hour period, an acceptable instrument blank and an Aroclor 1016/1260 CS3 standard must be analyzed in order to start a new sequence. This requirement applies even if no analyses were performed since that standard was injected."** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
|---|---|
| *Aro-Item 14*<br>Exhibit D – Aroclor: Section 9.3.2.5 | The following Section:<br>"The requirements for running the instrument blanks and CS3 Aroclor 1016/1260 Standard Mixture are waived when no samples (including LCSs and MS/MSDs), dilutions, reanalyses, or required blanks (method/sulfur cleanup) are analyzed during that 12-hour period. To resume analysis, using the existing initial calibration, the Contractor must first analyze an instrument blank and CS3 Aroclor 1016/1260 Standard that meet the technical acceptance criteria."<br><br>Is updated to:<br>"The requirements for running the instrument blanks and CS3 Aroclor 1016/1260 Standard Mixture are waived when no samples (including LCSs and MS/MSDs), dilutions, reanalyses, or required blanks (method/sulfur cleanup) are analyzed during that 12-hour period. To resume analysis, using the existing initial calibration, the Contractor must first analyze an **opening CCV that consist of** an instrument blank, Aroclor 1016/1260 CS3 Standard, **and any additional CS3 Aroclor Standard (s)** that meet the technical acceptance criteria. **Note: Additional opening CCV CS3 Aroclor Standard (s) determined to be necessary are at the laboratory's discretion."** |
| *Aro-Item 15*<br>Exhibit D – Aroclor: Section 9.3.2.5 | The current "Section 9.3.2.5" is updated to **"Section 9.3.2.4"**. |
| *Aro-Item 16*<br>Exhibit D – Aroclor: Section 9.3.2.6 | The following Section:<br>"If the entire 12-hour period is not required for the analyses of all samples and blanks to be reported and all data collection is to be stopped, the sequence must be ended with the instrument blank/CS3 Aroclor Standard Mixture (s) (1016/1260 and all detected Aroclors) combination."<br><br>is updated to:<br>"If the entire 12-hour period is not required for the analyses of all samples and blanks to be reported and all data collection is to be stopped, the sequence must **end with an appropriate closing CCV combination, that is, an instrument blank/CS3 Aroclor 1016/1260 and all detected Aroclor CS3 Standard Mixture(s)."** |
| *Aro-Item 17*<br>Exhibit D – Aroclor: Section 9.3.2.6 | The current "Section 9.3.2.6" is updated to **"Section 9.3.2.5"**. |
| *Aro-Item 18*<br>Exhibit D – Aroclor: Section 9.3.2.7 | The following Section:<br>"No more than 14 hours may elapse from the injection beginning the opening CCV (instrument blank) and the injection ending the closing CCV (Aroclor Standard)."<br><br>Is updated to:<br>"No more than 14 hours may elapse from the injection beginning the opening CCV (instrument blank) and the injection ending the closing CCV (Aroclor Standard). **If more than 12 hours elapse between the injections of the two instrument blanks (opening and closing CCV) that bracket a 12-hour period in which samples or required blanks are analyzed, then the time between the injection of the instrument blank (closing CCV) and the preceding sample may not exceed the length of one chromatographic run."** |

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| *Aro-Item 19*<br>Exhibit D – Aroclor: Section 9.3.2.7 | **The current "Section 9.3.2.7" is updated to "Section 9.3.2.6".** |
| *Aro-Item 20*<br>Exhibit D – Aroclor: Section 9.3.4 | The following Section:<br>"Calculations for Calibration Verification<br><br>For each analysis of the CS3 Individual Standard Mixture(s) used to demonstrate calibration verification, calculate the Percent Difference between the CF of each Aroclor peak (including the surrogates) in the standard mixture and the $\overline{CF}$ from the initial calibration, using Equation 5."<br><br>is updated to:<br>"Calculations for Calibration Verification<br><br>For each analysis of the CS3 Individual Standard Mixture(s) used to demonstrate calibration verification, calculate the Percent Difference between the CF of each Aroclor peak **in the standard mixture and the $\overline{CF}$ from the initial calibration, using Equation 5. Calculate the Percent Difference between CF of surrogates in each standard mixture and the $\overline{CF}$ from the initial calibration of Aroclor 1016/1260 or 1016 if analyzed as a separate mixture, using Equation 5."** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 21*<br>Exhibit D – Aroclor: Section 9.3.5.3 | The following Section:<br>"For the opening CCV, Percent Difference for each Aroclor peak and surrogates calculated from the CCV standard must not exceed ±15%. For the closing CCV, Percent Difference for each Aroclor peak and surrogates calculated from the CCV must not exceed ±50%. If the Percent Difference for the closing CCV is ±15% or less, then it can be used for the opening CCV of the next 12-hour period."<br>is updated to:<br>"For the opening CCV, Percent Difference for each Aroclor peak and surrogates calculated from the CCV standard must not exceed ±15%. For the closing CCV, Percent Difference for each Aroclor peak and surrogates calculated from the CCV must not exceed ±50%. If the Percent Difference for the closing CCV is ±15% or less, then it can be used for the opening CCV of the next 12-hour period.<br>**Note: When a required closing CCV of an Aroclor other than Aroclor 1016/1260 is preceded by an opening CCV of Aroclor 1016/1260 CS3 only, the percent difference of each Aroclor peak and surrogate compound must not exceed ± 15%."** |
| *Aro-Item 22*<br>Exhibit D – Aroclor: Section 9.3.6.7 | The following Section:<br>"If a successful instrument blank and Aroclor 1016/1260 standard cannot be run after an interruption in analysis (Section 9.3.2.6), an acceptable initial calibration must be run before sample data may be collected. All acceptable sample (including LCS and MS/MSDs) and required blank (method/sulfur cleanup) analyses must be preceded and followed by acceptable standards and instrument blanks, as described in Section 9.3.2."<br>is updated to:<br>"If a successful instrument blank and Aroclor 1016/1260 standard cannot be run after an interruption in analysis (Section 9.3.2.6), an acceptable initial calibration must be run before sample data may be collected. All acceptable sample (including LCS and MS/MSDs) and required blank (method/sulfur cleanup) analyses must be preceded and followed by acceptable instrument blanks and standards **(opening and closing CCV)** as described in Section 9.3.2." |
| *Aro-Item 23*<br>Exhibit D - Aroclor: Section 10.2.2.3.1 | The following Section:<br>"Using a syringe or a volumetric pipet, transfer all of the hexane extract to a 10mL vial and, in a fume hood, carefully add 5mL of the 1:1 (v/v) sulfuric acid/water solution."<br>is updated to:<br>"Using a syringe or a volumetric pipet, transfer **an aliquot (1 or 2 mL)** of the hexane extract to a 10mL vial and, in a fume hood, carefully add 5mL of the 1:1 (v/v) sulfuric acid/water solution." |
| *Aro-Item 24*<br>Exhibit D – Aroclor: Section 10.2.2.3.1 and 10.2.2.3.2 | The following Sections will be switched:<br>The language for the updated sentence of Section 10.2.2.3.1 will become Section 10.2.2.3.2 and vice versa. |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 25*<br>Exhibit D – Aroclor: Section 10.3.2.1 | The following Section:<br>"Analytical Sequence<br><br>All acceptable samples must be analyzed within a valid analysis sequence as given below:<br><br>Time / Injection # / Material Injected<br>— / 1-12 / First 12 steps of the initial calibration<br>0 hr. / 13 / Instrument blank<br>— / 14 / Aroclor 1016/1260 Standard<br>— / — / Sample<br>12 hr. / — / Last sample<br>— / 1st injection past 12 hr. / Instrument blank<br>— / 2nd injection past 12 hr. / Aroclor 1016/1260 standard<br>— / — / Subsequent samples<br>Another 12 hrs. / — / Last sample<br>— / 1st injection past 12 hr. / Instrument blank<br>— / 2nd injection past 12 hr. / Aroclor 1016/1260 standard<br>— / 3rd injection past 12 hr. / Sample<br><br>is updated to:<br>"Analytical Sequence<br><br>All acceptable samples must be analyzed within a valid analysis sequence as given below:<br><br>**Time** / **Injection #** / **Material Injected**<br>— / **1-12 (or 5-points of all Aroclors)** / First 12 steps of theinitial calibration (or 5-points of all Aroclors)<br>0 hr. / 13 / Instrument blank<br>— / 14 / Aroclor 1016/1260 Standard<br>— / ***15*** / **Additional Aroclor CS3 Standard (optional)**<br>— / ***16*** / **Subsequent Samples**<br>12 hr. / — / Last sample<br>— / 1st injection past 12 hr. / Instrument blank<br>— / 2nd injection past 12 hr. / ***Aroclor 1016/1260 Standard***<br>— / **3rd injection past 12 hr.** / **Detected Aroclor CS3 Standard *(as required)***<br>**14 hr.** / **4th injection past 12 hr.** / **Detected Aroclor CS3 Standard *(as required)***<br>— / — / Subsequent Samples<br>Another 12 hrs. / — / Last sample<br>— / 1st injection past 12 hr. / Instrument blank<br>— / 2nd injection past 12 hr. / Aroclor 1016/1260 standard<br>— / 3rd injection past 12 hr. / Sample |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 26*<br>Exhibit D – Aroclor: Section 10.3.2.1.1 | The following Section:<br>"The first 12 hours are counted from injection #13, not from injection #1. Samples may be injected until 12:00 hours have elapsed. All subsequent 12-hour periods are timed from the injection of the instrument blank that brackets the front end of the samples. If more than 12 hours elapse between the injections of two instrument blanks that bracket a 12-hour period in which samples or required blanks are analyzed, then the time between the injection of the instrument blank and the preceding sample may not exceed the length of one chromatographic run. While the 12-hour period may not be exceeded, the laboratory may run instrument blanks and standards more frequently, for instance, to accommodate staff working on 8-hour shifts. No more than 14 hours may elapse from the injection beginning the opening CCV (instrument blank) and the injection ending the closing CCV (Aroclor Standard)."<br><br>is updated to:<br>**"Injections #1 through #12 in Section 10.3.2.1 may be expanded to include all injections of initial calibration standards as specified in Option 2 and 3 in Section 9.2.3.5.** The first 12 hours are counted from injection #13, not from injection #1, **in the initial calibration sequence Option 1 detailed in Section 10.3.2.1. Alternately, the first 12 hours will be counted from the injection of the instrument blank of an opening CCV when performed immediately after completion of the initial calibration Options 2 and 3.** Samples may be injected until 12:00 hours have elapsed. All subsequent 12-hour periods are timed from the injection of the instrument blank that brackets the front end of the samples. If more than 12 hours elapse between the injections of two instrument blanks that bracket a 12-hour period in which samples or required blanks are analyzed, then the time between the injection of the instrument blank and the preceding sample may not exceed the length of one chromatographic run. While the 12-hour period may not be exceeded, the laboratory may run instrument blanks and standards more frequently, for instance, to accommodate staff working on 8-hour shifts. No more than 14 hours may elapse from the injection beginning the opening CCV (instrument blank) and the injection ending the closing CCV (Aroclor Standard)." |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 27*<br>*Exhibit D – Aroclor: Section 10.3.3.2* | *The following:*<br>*"If the **response** of the largest peak for any Aroclor is greater than the **response** of the same peak in the high-point standard in the initial calibration for both columns, then the sample must be diluted to have the **response** of the largest peak of the lower of the two column analyses be between the low and high calibration standards."*<br>*Is updated to:*<br>*"If the **concentration** of the largest peak for any Aroclor is greater than the **concentration** of the same peak in the high-point standard in the initial calibration for both columns (the largest peak on the second column may be a different peak), then the sample must be diluted to have the **concentration** of the largest peak of the lower of the two column analyses be between the low and high calibration standards."* |
| *Aro-Item 28*<br>*Exhibit D – Aroclor: Section 10.3.3.8* | The following:<br>"Use the results of the original analysis to determine the approximate DF required to get the largest analyte peak (for the lower of the two column ***responses***) within the initial calibration range."<br>Is updated to:<br>"Use the results of the original analysis to determine the approximate DF required to get the largest analyte peak (for the lower of the two column ***concentrations***) within the initial calibration range." |
| *Aro-Item 29*<br>Exhibit D – Aroclor: Section 11.1.1.4 | The following Section:<br>"When an Aroclor other than 1016 or 1260 is detected in a sample, a valid five-point calibration curve specific to that Aroclor must be run, followed by reanalysis of the sample or appropriately diluted sample with the detected Aroclor present. The Mean Calibration Factor (CF) will be used to quantitate the analyte in the sample."<br><br>is updated to:<br>"When an Aroclor other than 1016 or 1260 is detected in a sample, **using a single point calibration,** a valid five point calibration of the specific Aroclor must be **performed,** followed by reanalysis of the sample or appropriately diluted sample **(if the sample concentration of Aroclor exceeded calibration)** with the Aroclor detected initially. **If a valid five-point calibration curve is available for an Aroclor other than 1016 or 1260, the Mean Calibration Factor ($\overline{CF}$) will be used for quantitation of the Aroclor in the sample, however, quantitation of the surrogate compounds using *surrogate data from* the initial five-point Aroclor 1016/1260 or from Aroclor 1016 if analyzed as a separate mixture.**<br>**Note: An estimated concentration (reported with an "S" flag) of the initial detection for an Aroclor other than 1016 or 1260, using a single point calibration standard will be quantitated using the Calibration Factor (CF), of at least 3 major peaks, from the specific single point calibration standard. The surrogates will be quantitated using the initial five-point Aroclor 1016/1260 or from Aroclor 1016 if analyzed as a separate mixture.** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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*Aro-Item 30*

Exhibit D – Aroclor: Section 11.2.1.1.1, Equation 7

**The equation is further expanded to allow for greater flexibility in the preparation and cleanup steps as follows:**

$$\text{Concentration } \mu g/L = \left(\frac{A_x}{\overline{CF}}\right)\left(\frac{DF}{V_i}\right)\left(\frac{V_t}{V_o}\right)\left(\frac{CV_{out}}{CV_{in} \times E}\right)_1\left(\frac{CV_{out}}{CV_{in} \times E}\right)_2 \cdots \left(\frac{CV_{out}}{CV_{in} \times E}\right)_n$$

**where,**

**$A_x$ = Peak area or peak height of the compound to be measured.**

**$\overline{CF}$ = Mean Calibration Factor determined from the initial calibration for the compound to be measured, in area/ng.**

**DF = Dilution Factor.**

**$V_i$ = Volume of extract injected in µL.**

**$V_t$ = Volume of extract produced by the preparation process (extraction and concentration), and before cleanup, in µL.**

**$V_o$ = Volume of the original water sample extracted in mL. Note: for instrument blanks and sulfur blanks assume a volume of 1000mL.**

**$CV_{out}$ = Volume of extract produced by a cleanup process (cleanup and concentration), in µL.**

**$CV_{in}$ = Volume of extract subjected to a cleanup process, in µL.**

**E = The efficiency of the cleanup process expressed as a fraction of material that passes through or is not mechanically lost during the cleanup step (e.g. 50% efficiency must be expressed as 0.50)**

*Aro-Item 31*

Exhibit D – Aroclor: Section 11.2.1.2.1, Equation 9

The equation is further expanded to allow for greater flexibility in the preparation and cleanup steps as follows:

$$\text{Concentration } \mu g/kg = \left(\frac{A_x}{\overline{CF}}\right)\left(\frac{DF}{V_i}\right)\left(\frac{V_t}{W_t \times D}\right)\left(\frac{CV_{out}}{CV_{in} \times E}\right)_1\left(\frac{CV_{out}}{CV_{in} \times E}\right)_2 \cdots \left(\frac{CV_{out}}{CV_{in} \times E}\right)_n$$

*where,*

***$A_x$, $\overline{CF}$, DF, $V_i$, $V_t$, $CV_{out}$, $CV_{in}$, and E are the same as Equation 7 above.***

*$W_t$ = Weight of the original soil sample extracted in g.*

$$D = \frac{100 - \%\text{Moisture}}{100}$$

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 32*<br>Exhibit D – Aroclor: Section 11.2.2 | The following Section:<br>"Target Compounds<br><br>The quantitation of Aroclors must be accomplished by comparing the heights or the areas of each of a minimum of 3 major peaks of the Aroclor in the sample with the CF for the same peaks established during the specific five-point calibration. The concentration of multi-component analytes is calculated by using Equations 7 and 9, where $A_x$ is the area for each of the major peaks of the Aroclor. The concentration of each peak is determined and then a mean concentration for a minimum of 3 major peaks is determined on each column."<br><br>is updated to:<br>"Target Compounds<br><br>**Except for an estimated value reported for an Aroclor other than 1016 or 1260,** The quantitation of Aroclors must be accomplished by comparing the heights or the areas of each of a minimum of 3 major peaks of the Aroclor in the sample with the CF for the same peaks established during the specific five-point calibration. The concentration of multi-component analytes is calculated by using Equations 7 and 9, where $A_x$ is the area for each of the major peaks of the Aroclor. The concentration of each peak is determined and then a mean concentration for a minimum of 3 major peaks is determined on each column." |
| *Aro-Item 33*<br>Exhibit D – Aroclor: Section 11.2.2.1 | The following Section:<br>"Note that the CFs used for the quantitation of Aroclors are the CFs from the concentration of the specific five-point calibration."<br><br>is updated to:<br>**"To quantitate and report the estimated concentration of an Aroclor other than 1016 or 1260, use the Calibration Factor (CF) for a minimum of 3 major peaks, from the single point Aroclor calibration standard used for the Aroclor pattern recognition. It will be necessary to substitute the single Calibration Factor (CF) for the Mean CF ($\overline{CF}$) in Equations 7, 8, 9 and 10.**<br>**Note:** The CFs used for the quantitation of **target** Aroclors are the CFs from the concentration of the specific five-point calibration." |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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*Aro-Item 34*

Exhibit D – Aroclor: Section 11.2.3.1, Equation 12

**The equation is further expanded to allow for greater flexibility in the preparation and cleanup steps as follows:**

**EQ. 12 Adjusted CRQL Calculation for Water Samples**

$$\text{Adjusted CRQL} = (\text{Contract CRQL})\left(\frac{V_x}{V_o}\right)\left(\frac{V_t}{V_y}\right)(DF)\left(\frac{CV_{out}}{CV_{in}\times E}\right)_1\left(\frac{CV_{out}}{CV_{in}\times E}\right)_2\cdots\left(\frac{CV_{out}}{CV_{in}\times E}\right)_n$$

**where,**

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| **Contract CRQL** | = | **The CRQL value reported in Exhibit C – Aroclors (µg/L).** |
| $V_x$ | = | **Contract sample volume (1000 mL).** |
| $V_o$ | = | **Volume of water extracted in mL. Note: for instrument and sulfur blanks assume a volume of 1000mL.** |
| $V_t$ | = | **Volume of water *concentrated extract* in µL.** |
| $V_y$ | = | **Contract concentrated extract volume (10,000 µL).** |
| **DF** | = | **Dilution Factor.** |
| $CV_{out}$ | = | **Volume of extract produced by a cleanup process (cleanup and concentration), in µL.** |
| $CV_{in}$ | = | **Volume of extract subjected to a cleanup process, in µL.** |
| **E** | = | **The efficiency of the cleanup process expressed as a fraction of material that passes through or is not mechanically lost during the cleanup step (e.g. 50% efficiency must be expressed as 0.50).** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 35*<br>Exhibit D – Aroclor: Section 11.2.3.2 Equation 13 | The equation is further expanded to allow for greater flexibility in the preparation and cleanup steps as follows:<br><br>**EQ. 13 Adjusted CRQL Calculation for Soil/Sediment Samples**<br><br>$$\text{Adjusted CRQL} = (\text{Contract CRQL})\left(\frac{W_x}{W_s \times D}\right)\left(\frac{V_t}{V_y}\right)(DF)\left(\frac{CV_{out}}{CV_{in} \times E}\right)_1\left(\frac{CV_{out}}{CV_{in} \times E}\right)_2 \cdots \left(\frac{CV_{out}}{CV_{in} \times E}\right)_n$$<br><br>**where,**<br><br>**Contract CRQL = The CRQL value reported in Exhibit C – Aroclors (µg/Kg).**<br>**$W_x$ = Contract sample weight (30 g).**<br>**$W_s$ = Weight of sample extracted in grams (g).**<br>**D = $\frac{100 - \%\text{Moisture}}{100}$**<br>**$V_t$ = Volume of the concentrated extract in µL.**<br>**$V_y$ = Contract concentrated extract volume (10,000 µL).**<br>**DF = Dilution Factor.**<br>**$CV_{out}$ = Volume of extract produced by a cleanup process (cleanup and concentration), in µL.**<br>**$CV_{in}$ = Volume of extract subjected to a cleanup process, in µL.**<br>**E = The efficiency of the cleanup process expressed as a fraction of material that passes through or is not mechanically lost during the cleanup step (e.g. 50% efficiency must be expressed as 0.50).** |
| *Aro-Item 36*<br>Exhibit D – Aroclor: Section 11.2.4 | The following Section :<br><br>"The concentrations for surrogate compounds can be calculated by using Equation 7 (for waters) and Equation 9 (for soils) and the $\overline{CF}$ from the most recent initial calibration."<br><br>is updated to:<br>"The concentrations for surrogate compounds can be calculated by using Equation 7 (for waters) and Equation 9 (for soils) and the $\overline{CF}$ from **a valid initial five-point calibration of Aroclor 1016/1260 or from Aroclor 1016 if analyzed as a separate mixture."** |

| EXHIBIT/SECTION(S) | MODIFICATION (S) |
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| *Aro-Item 37*<br>Exhibit D – Aroclor: Section 11.3.5 | The following Section:<br>"The RT for each of the surrogates must be within the RT window (Section 9.2.4.3) for both GC columns."<br><br>is updated to:<br>**"Surrogate compounds Retention Time (RT) must be compared to the window established during a valid initial five-point calibration of Aroclor 1016/1260 or from Aroclor 1016 if analyzed as a separate mixture.** The RT for each of the surrogates must be within the RT window (Section 9.2.4.3) for both GC columns." |
| *Aro-Item 38*<br>Exhibit D – Aroclor: Section 12.3.4.2 | The following Section:<br>"Calculate individual compound recoveries of the LCS using Equation 14"<br><br>is updated to:<br>"Calculate individual compound recoveries of the LCS using **Equation 15**". |